An Address
ON
ACUTE INTUSSUSCEPTION IN AN INFANT EIGHT MONTHS OLD.

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MR. PRESIDENT AND GENTLEMEN,—In the following case laparotomy was successfully performed upon an infant eight months old for the reduction of an acute intussusception. Although intussusception is not a rare complaint, very few successful operations of this kind have been reported; but I have no doubt that this will alter when a knowledge of the conditions which ensure success become better known. Some of these conditions are illustrated by the following details.

The patient was a well-grown male infant aged eight months. His health had been good until the afternoon of Monday, March 28th, when at 1.30 P.M. he began to scream and stretch out his legs. During the afternoon and following night he was frequently sick, but passed a black motion at 6 P.M. and another during the night. On the following day the sickness continued and neither fæces nor flatus were passed. He was brought to St. Bartholomew's Hospital and, in addition to the acute intestinal obstruction, it was found that the abdomen was distended and that a hard elongated tumour could be felt under the middle of the right linea semilunaris. There was free abdominal respiration and the distended small intestines exhibited vigorous vermicular movement. Nothing could be felt per rectum, but the bowel contained some dark blood. The general condition of the infant was not good. It seemed in pain and its face was white and pinched, with deep hollows around the eyes, which were sunk in the orbits. Having obtained permission to perform laparotomy if it was afterwards found to be necessary I began, twenty-eight hours after the onset of the symptoms, to attempt the reduction of the intussusception. Owing to the extreme danger which infants incur of dying from shock the operating table was covered with a hot-water bed and directions were given for the thorough heating of the sponges and instruments and lotions. It was also determined, should an operation be required, to perform it with the greatest possible rapidity. The mother was also sent to bed to be ready for the return of the infant. Mr. Grant having administered chloroform, ten ounces of warm water were injected into the bowel by means of an indiarubber tube and funnel. When the latter was raised two feet and a half the abdomen swelled and it was quite clear that the fluid had reached the tumour. Owing to the abdominal distension the tumour ceased to be felt, but returned again as the water ran out. The injection was repeated with twelve ounces of water and the funnel was raised three feet, but without result. The abdomen was therefore opened by an incision about five inches long in the left linea semilunaris. The distended intestines were kept back with a flat sponge and the tumour was brought into view. The intussusception belonged to the rare ileo-colic variety, the ileum having for about four inches prolapsed through the ileo-cæcal valve. An attempt to squeeze it out proved quite futile, so the cæcum and colon, together with the intussusception, were drawn out of the abdomen and then the ileum was dragged out of the ileo-cæcal valve. The bowel itself was not adherent, but was deeply congested and thickened. No rents were made in its serous covering and it was dusted with iodoform and thrust back into the abdomen. The wound was rapidly closed in the usual way with sterilised silk sutures, a large dressing was applied and the infant was sent back to its mother, who was in bed. Mr. Grant informed me that the time occupied in giving the two injections and in performing the operation was thirty-five minutes. After the operation the child was fretful for a time, but it soon became warm and comfortable under the influence of small doses of opium and brandy. During the reaction the temperature rose to 102·2° F., but it soon subsided. The infant took the breast fairly well and its bowels were opened twice in the night, the first motion being slightly coloured with blood. The subsequent progress was uneventful. The dressing caused some redness and blistering of the skin and it was taken off on March 30th and iodoform was applied. The second dressing was done on April 4th, when the stitches were removed, and after that there was nothing further to note.

I have already said that operations of this kind upon infants have rarely succeeded, and therefore it may not be unprofitable to discuss the factors which conduced to success in this instance. Without question time was one of the most important elements. As only twenty-eight hours had elapsed since the onset of the symptoms the infant was still strong and was not much exhausted by the pain and vomiting. Next, sufficient time had not been allowed to elapse for the local conditions to have become irremediable. Although the intussuscepted bowel had become much congested and engorged it had not formed any adhesions, nor had its walls become gangrenous or ulcerated with subsequent septic peritonitis. Time was also economised at the operation. A large part of the thirty-five minutes during which the infant was under chloroform was occupied in the administration of the injections. There can be no doubt but that it is futile to expect success in infants and children unless abdominal operations are done with the greatest expedition. Lindemann[1] points out that those who die after laparotomy and disinvagination of the intussusception do so within sixteen hours. Shock is the great cause of fatality, and can in great part be obviated by preventing extrusion of the intestines, by not dragging upon the mesentery, by heating instruments, sponges and materials, and by using a hot-water bed, an appliance with which every operating theatre ought to be provided; much, too, can be done in the after-treatment by warmth, brandy and opium. Another factor which conduces to success is the absence of septic peritonitis. The presence of vermicular contractions in the distended intestine betokened the absence of peritonitis in this case, and I may say that I have never seen this sign fail in others. The absence of vermicular movement does not, however, always indicate that there is peritonitis, although it often does. After the intestines have been greatly distended, or after they have been making violent peristaltic efforts to overcome an obstruction, their muscular walls are not infrequently paralysed without any peritonitis. There are two great causes of peritonitis in cases of this kind. The peritoneum may become infected from without at the time of the operation or it may become infected from the interior of the intestine owing to rupture, ulceration, gangrene or perhaps other vital changes in the mucous, muscular, and serous coats. Neither of these kinds of peritonitis ought to occur. The first, which is usually called "operative peritonitis," is due to the introduction of the ordinary pyogenic cocci at the time of the operation and is strictly preventable. The instruments, towels, dressings, ligatures, sponges or other materials ought to be sterilised by heat or chemicals. Heat is reliable if properly applied. Chemicals are unreliable and demand much knowledge, care and skill in their application. The patient's skin also needs thorough disinfection, as well as the hands of the operator and of his assistant. The admirable experiments of Grawitz, Walthard, Waterhouse, Fraenkel, Wegner, Eiselsberg and of others clearly show that although infection is a most important factor in operative peritonitis other things have predisposing influences. Amongst these may be mentioned mechanical injuries to the peritoneum, chemical injuries, drying by exposure to the atmosphere and the leaving behind of blood-clots, fluids or foreign bodies. It is obvious that most of these predisposing causes are avoidable: the mechanical injuries by skilful and delicate operating, the chemical injuries by not introducing strong solutions of carbolic acid or perchloride of mercury upon the hands or sponges, and blood-clots by stanching all hæmorrhage before opening the peritoneum and by at once clamping any bleeding vessels. The peritonitis which is caused by intestinal bacteria, especially by the bacillus coli communis, is also preventable. The able experiments of Bönnecken, Waterhouse and Arndt have proved that the bacteria of the intestines begin to traverse their walls after a loop of intestine had been constricted for from four to forty-eight hours. A short venous stasis, which has no effect upon the subsequent vitality of the intestine, is enough to permit the passage of bacteria in animals and

[1] Berliner Klinische Wochenschrift, June 27th, 1892.

probably in human beings, especially infants. After this it is hardly necessary to add anything about the passage of bacteria through intestinal walls which have been allowed to remain invaginated until they are on the verge of gangrene. Thus the changes which ensue in the intestine in acute intussusception are analogous to those which occur in strangulated hernia and the treatment should be conducted upon similar lines. In strangulated hernia an attempt at reduction is made if the condition of the bowel permits, and if it fails an operation is performed forthwith.

Here two questions arise: Firstly, what attempts at reduction ought to be made? and secondly, what operation ought to be performed? Assuming that the diagnosis is clear, I think the results of the practice at St. Bartholomew's Hospital[2] show that it is best to give an anæsthetic and to inject a fluid into the bowel by means of a simple indiarubber tube and funnel. The kind of liquid does not seem to matter, but warm water is as suitable and convenient as any other. The administration of an anæsthetic is, I believe, of great importance. In one case only two ounces of oil could be introduced without an anæsthetic, whilst under chloroform a pint was thrown up with a successful result. At St. Bartholomew's Hospital[3] air seems to have been unavailing whenever it was tried, although successful cases have been recorded by Senn and others; but it is clear that neither the injection of air nor of fluids can avail after the swelling and engorgement of the invaginated bowel have reached a certain degree. Mr. Eccles, from his analysis of twenty-eight cases, concludes that injections afford a fair chance of success in cases of not more than three days' standing, but after the third day they are of little use.[4] I myself should hardly be so sanguine after what I have seen and read, and think that the prospects are very bad after forty-eight hours of acute intussusception.

The degree of force which is used in giving the injection and the quantity of fluid have to be graduated with great care, the probable size of the bowel and the thickness and morbid condition of its walls being especially taken into consideration. In Mr. R. W. Parker's[5] case of a child aged three months, who had had an acute ileo-cæcal intussusception for three days, a quantity of soap-and-water containing a little oil was injected by means of an ordinary Higginson's syringe. Suddenly the abdomen became tense and perforation of the bowel occurred. In Mr. Bilton Pollard's[6] case, to which I shall refer again, a male infant had had an acute intussusception for ten hours. Chloroform was given and a pint of warm water was injected with a rubber tube and a funnel raised three feet and a half. This was done twice and at a subsequent laparotomy, from which the infant recovered, Mr. Pollard ascertained that the intestines were uninjured and that the invagination had been reduced. A column of fluid three feet high was also successful in a case under Mr. Pye-Smith.[7] The patient was a male infant who had had an intussusception for about six hours, inflation having previously failed. This probably marks about the limit of safety as regards force and quantity in infants less than a year old and in whom the intussusception is not far from the commencement of the large intestine; obviously, as the age of the patient advances, both force and quantity may be increased. Gravitation of the fluid by means of a simple rubber tube and funnel is a safe plan of giving the injection. The number of attempts which are to be made will of course depend upon the case. Success is declared by the disappearance of the tumour, by gurgling beyond it, and by the intestines beyond it filling. The disappearance of the tumour as the abdomen becomes tense is apt to be deceptive, as it was in the case which I have just described. In Mr. Pollard's[8] case after the second injection a tumour was still felt, but laparotomy proved that reduction had been accomplished by the injection and that the tumour was the engorged and swollen ileo-cæcal valve. As far as I can gather injections have only been successful in ileo-cæcal and ileo-colic intussusceptions and in those of the rectum and large intestines. There is no evidence to show that the enteric variety has been overcome. The ileo-cæcal valve will partially account for this, but enteric and ileo-colic intussusceptions are much tighter and adhere sooner than others.[9] If the attempts at reduction fail an operation should be done forthwith as in other kinds of mechanical obstruction. In early cases there has never been much difficulty after laparotomy in either squeezing out or drawing out the invagination. This can be done rapidly and easily by anyone accustomed to abdominal surgery, and affords, when done soon enough, a good prospect of success, especially as operative septic peritonitis is a contingency which need hardly be considered by those who practise asepsis. After doubtful attempts at reduction by injections the course to be pursued must depend upon the general condition of the patient and upon the duration of the acute symptoms. The mind ought to be fixed upon the changes which are occurring in the intussuscepted bowel. Left alone gangrene soon supervenes, and even should this lead to separation of the bowel death usually ensues, as in a recent case of Dr. Robertson's.[10] During the first twenty-four hours it is justifiable to wait a few hours to see whether the injection has succeeded; during the second twenty-four hours it may be justifiable; but after forty-eight hours have elapsed I venture to think that the dangers of laparotomy are outweighed by the dangers of delay and that the operation ought to be done forthwith. As yet, however, early and favourable cases are the exception rather than the rule; therefore it is necessary in performing laparotomy to be prepared for the grave embarrassment of being unable to withdraw the intussusception. I do not believe that as yet the data are forthcoming which are necessary for a proper judgment as to the best course to pursue under these circumstances. The first step is, if possible, to withdraw the tumour from the abdomen and to pack the neighbouring peritoneum with sponges. In some cases it might, I suppose, be feasible to make a longitudinal incision into the invaginating bowel and so facilitate withdrawal. Longitudinal incisions into the intestines are easy to suture and repair themselves well. Further, should this attempt fail, the same longitudinal cut can be prolonged and utilised for amputation of the intussusceptum. This suggestion is due to Dr. Maunsell[11] and Mr. Barker.[12] The idea is to suture the intussusceptum and intussuscipiens together at the point of entrance, and then by a longitudinal incision to open the bowel and to amputate the intussuscepted part. Mr. Barker has done this twice, and although neither of the cases recovered it was demonstrated that the operation could be done quickly and that it restored the lumen of the bowel. Dr. Maunsell also mentions a case which demonstrates the practicability of this procedure. This device has the merit of imitating nature. In some rare cases of chronic intussusception the invaginated bowel has sloughed off and recovery has ensued. However, it is to be noticed that these cases are nearly always of the chronic kind and not of the acute, of which I am speaking; but it is to be expected that the invaginating bowel must oftentimes be found to be so much damaged as not to be in a safe condition for suturing. I have seen it so friable and tender that its serous covering lacerated at the gentlest touch. Here longitudinal incision and amputation would, I venture to argue, be rash. Yet, under these circumstances, there are only two desperate expedients to fall back upon. In 1889 I resected an enteric intussusception which had reached an advanced stage.[13] The child lived for twenty hours and at the time I thought that she had died from shock. I have little doubt now but that peritonitis was a much more potent factor. I have been unable to discover any case of recovery after the resection of an acute intussusception with immediate suture of the intestine. The other alternative is to fix the intussusception outside the abdomen with the view of its subsequent excision and suture of the intestine. A successful case of this kind has been reported by Lindemann.[14] Or the intussusception may be removed at once and an artificial anus established. This has been done by Mr. Lawford Knaggs,[15] but the patient, a boy aged five years and a half, never rallied and died, as did also one operated upon by Mr. Makins.[16] This, I believe, has been the end of all the cases treated in this way with the exception of one by Vasilieff.[17] Two years ago I witnessed the resection of an intussusception of the ileum due to a fibrous polypus, with the subsequent formation of an artificial

[2] See a valuable paper by Mr. W. McAdam Eccles: An Analysis of Twenty-eight Cases of Intussusception. (St. Bartholomew's Hospital Reports, 1892, p. 97 &c.)
[3] Ibid., p. 100. [4] Ibid., p. 102.
[5] Transactions of the Clinical Society, vol. xxi., p. 244.
[6] THE LANCET, Oct. 15th, 1892.
[7] THE LANCET, Dec. 24th, 1892.
[8] THE LANCET, Oct. 15th, 1892.
[9] See Makins: Transactions of the Clinical Society, vol. xxii., p. 284.
[10] THE LANCET, Aug. 27th, 1892.
[11] THE LANCET, Feb. 13th, 1892.
[12] THE LANCET, Jan. 9th, 1892: A Suggestion for the Treatment of Irreducible Intussusception of the Bowels.
[13] Transactions of the Clinical Society, vol. xxiv., p. 100.
[14] Berliner Klinische Wochenschrift, June 27th, 1892. See also McGill, THE LANCET, April 16th, 1887.
[15] THE LANCET, June 4th, 1887.
[16] Transactions of the Clinical Society, vol xxii., p. 282.
[17] Brit. Med. Jour., 1888, p. 137

anus.[18] The patient died on the following day from diffuse septic peritonitis, which seems to be the great danger of this method of procedure. As regards safety, I am inclined to think that the order of precedence of these operations will be as follows—incision, incision and amputation, resection and immediate suture, extrusion and artificial anus without resection, and artificial anus preceded by resection. However, as I have already said, the data are wanting for a final judgment. The relative merits of resection and immediate suture and of extrusion and artificial anus require to be carefully weighed. Resection with immediate suture is an ideal operation. If it succeeds the patient is cured without further operation. Shock seems to be the chief danger, but with increasing knowledge, better appliances and more skilful and rapid operating successes will soon have to be recorded.

The history of laparotomy for the reduction of intussusceptions affords encouragement in this respect. Since Mr. Lawford Knaggs[19] gave a table of eight cases of intussusception cured by laparotomy I have met with records of others by Mr. Annandale,[20] Mr. Bruce Clarke,[21] and Mr. Carver,[22] although in the latter the symptoms were somewhat chronic, and doubtless there are many which have escaped my notice.

Time is, as I have already said, the most essential element for success in acute intussusception. Delay ought not to be occasioned by difficulties in diagnosis. The signs of acute intussusception are clear and unambiguous and ought not to be mistaken. They are acute intestinal obstruction, *plus* the discharge of blood and mucus from the bowel, *plus* a tumour. Blood is passed in half the cases and a tumour is equally often felt either by the rectum or in the abdomen.[23] By acute intestinal obstruction is implied the non-passage of fæces or of flatus, followed by vomiting. These symptoms alone would not point to any particular kind of mechanical obstruction, but the coexistence of the other two or of one of them would leave but little doubt that the obstruction was due to intussusception.

I have refrained from referring to other symptoms which systematic writers discourse upon because they are equivocal and are of subsidiary importance and tend to confusion.

THE PATHOGENESIS OF CHOLERA.

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THE peculiarity of its symptoms, the absence of resemblance to other maladies, the mysterious nature of its progress, its tremendous mortality and the futility of all treatment have surrounded cholera with a weird mystery which is all its own. It has been separated in the minds of pathologists from all other maladies and has been considered on special lines. But after all it is nothing more than an acute specific disease, communicable from the sick to the healthy and apt to prevail in an epidemic form. It is in this light that its study should be approached and the more we can bring our views regarding it into line with those held regarding other acute specific communicable maladies the more regular and orthodox will be our mode of procedure and the more likely shall we be to solve the problems presented for consideration and to dissipate the mystery in which the pathogenesis of cholera is enshrouded.

The poison of cholera enters the system from without. It is received into the body in small quantity and is given off from it in large: it is therefore reproduced in the system. Nothing in nature is ever reproduced except an organism. The reproduction of the cholera poison in the system is, therefore, distinct and adequate proof that that poison is an organism. Dr. Koch believed that he had discovered this organism and he has described it as a comma-shaped bacillus, which, he says, is the cholera poison — the *fons et origo mali*. His observations are full of interest, and they, as well as the conclusions which he draws from them, may prove to be correct; but, after all, have they advanced our knowledge of the pathogenesis of cholera? Does one know more now than one did before his observations were made of the mode of action of the cholera poison and of the manner in which the diarrhœa, the cramps, the collapse and all the symptoms of cholera are produced? No, be Dr. Koch right or be he wrong, our knowledge on these points stands just where it did before his observations were made; and now, with cholera at our doors in 1893, there exist exactly the same knowledge, or want of knowledge, of its nature, course and treatment, and the same knowledge, or want of knowledge, of the means of guarding against it which we possessed when last it invaded these shores in 1865. Far be it from me to detract from Dr. Koch's merits as an observer. He is a brilliant and capable one, and has made some very solid and real additions to one's knowledge of diseased processes; but it would be a mistake to say that he has advanced one's knowledge of the pathogenesis of cholera. It was known, before his observations were made, that the cholera poison is an organism which is largely reproduced in the system and whose morbific action is intimately associated with such reproduction. When Dr. Koch looked for a specific organism in cholera stools he looked for what he already knew to be there. The discovery of the comma bacillus (granting it to be the cholera poison) is an important addition to our knowledge of the natural history of the disease, but it has not advanced our knowledge of its pathogenesis or increased our power of dealing with it. The nature of the cholera poison is known. The important question is, How does it act?

The reproduction of its poison in the system, the acuteness of the disease, and its communicability from the sick to the healthy bring cholera into etiological relationship with the specific fevers. Something is known about their pathogenesis and the mode in which their poisons act in the production of their special and peculiar features. This knowledge may help in the investigation of what is obscure in the case of cholera, or may at least point to a course of inquiry which may tend to dispel some of the mystery which surrounds that disease. In investigating the pathogenesis of any disease the first point to be decided is, What are its essential features, what particular phenomenon or group of phenomena is essential to and characteristic of it? The next point is to explain how they are produced.

The specific fevers have one feature in common, the occurrence of fever; but each has in addition some special and peculiar feature of its own which distinguishes it from all other fevers—by which it is recognised and without which it cannot with certainty be said to exist. In small-pox it is the eruption, in measles the rash and irritation of the mucous membrane of the respiratory tract, in scarlet fever the rash and sore throat, and in typhoid fever the intestinal lesion. The seat of this local lesion is the part on which the action of the poison is chiefly manifested. This action is essentially connected with and dependent on the reproduction of the poison. It is in the seat of the local lesion that the vivification and reproduction of the poison are specially active, and therefore it is that the poison always exists in greatest abundance in the seat of that lesion. The small-pox poison is most abundant in the pustules, that of typhoid fever in the discharges from the bowel lesion, and the scarlet fever poison in the discharges from the throat and in the peeling cuticle. Now, is there anything in cholera which can be regarded as corresponding to the local lesions of the specific fevers? Is there any one lesion common to all cases which can be said to be as characteristic of the action of the cholera poison as the rash is of the action of the poison of scarlet fever or as the bowel lesion is of the action of the poison of typhoid fever? It cannot be said that diarrhœa and rice-water stools are so, for diarrhœa is not a lesion, it is a symptom caused by something else. It cannot be said that collapse is so, for here again we are dealing not with a lesion but with a symptom or group of symptoms, for the cause of which we are in search. The one lesion peculiar to, characteristic of and common to all cases of cholera is shedding of the epithelium. This is the essential and characteristic feature of cholera, bearing to that disease the same relation that the rash bears to scarlet fever and that the intestinal lesion bears to typhoid fever. How is it brought about? It is, of course, the result of the

[18] Transactions of the Pathological Society, vol. xliii., p. 74.
[19] THE LANCET, June 11th, 1887.
[20] Edinburgh Monthly Medical Journal, 1889, p. 777. Age three years; tumour felt in rectum; injections failed; laparotomy on third day; reduction quite easy.
[21] Reported by Mr. Tunnicliffe in St. Bartholomew's Hospital Reports, vol. xxviii., p. 113. The infant was only six months old. Two other cases are mentioned; one recurred after injection, the other died after laparotomy.
[22] THE LANCET, April 23rd, 1887.
[23] Treves' Intestinal Obstruction, p. 241.

action of the cholera poison. This poison is an organism which is largely reproduced in the system and which, during such reproduction, exercises a most destructive action. An organism which thus grows in and at the expense of another is a parasite. In studying the action of parasites it is found that, as a rule, each has its own special habitat or nidus in which it is reproduced and away from which it ceases to manifest life and activity; this one selects the roots of the hair of the head, that the roots of the moustache or beard; this grows on mucous membrane, that on skin; this in muscle, that in liver. Why it is that the parasite which causes ringworm prefers the hairy scalp is not known, but it is known for a fact that it does so; why that which gives rise to sycosis should select the roots of the hair of the upper lip and chin one cannot say, but it is known that it does so. Why the trichina spiralis should make its nest in muscle rather than in any other tissue cannot be explained, but it is known that it does so. Why the parasite which gives rise to fluke in the sheep should select the liver for its home one cannot say, but it is known that it does so. What it is in the intestinal glands that makes them essential to the active growth and propagation of the poison of typhoid fever is not known, but it is known for a fact that it is so, that the age of liability to typhoid fever is coincident with the period of activity of these glands, that inflammation of these glands is the essential and characteristic feature of typhoid fever, and that the discharges which come from them during the course of that disease contain the typhoid poison in large quantity. What it is in the throat and in the skin that makes these structures specially suitable for the growth and action of the poison of scarlet fever is not known, but it is known that it is on these structures that its action is chiefly manifested and that it is in the throat discharges and in the peeling cuticle that the poison is specially abundant. What it is in the epithelium of the human intestine which makes it a suitable nidus for the growth and propagation of the cholera poison is not known, but it is known that destructive shedding of that epithelium is essentially associated with the action of the cholera poison and is as characteristic of its action as the rash is of the action of the poison of scarlet fever, and that that poison is most abundantly contained in the intestinal discharges. On this view that the epithelial lining of the human intestine is the nidus of the cholera poison and contains what is essential for the vivification and reproduction of that poison, the essential and characteristic feature of that disease, shedding of the epithelium, can be explained. At the same time cholera is brought pathologically into line with other acute specific communicable diseases. On this view of the nature of its special lesion one can also explain many of the phenomena noted in connexion with the disease.

Firstly as to its mode of propagation. In the natural history of cholera there is no fact better established than that the disease is essentially associated with defective sanitary arrangements, and that of all such dangers the greatest is the impregnation of drinking-water with sewage impurities. Intestinal epithelium is constantly being shed and constitutes a considerable part of the natural discharges from the bowel. Wherever there is the possibility of the existence of sewage impurities there exists also the coincident possibility of the presence of intestinal epithelium or of the products of its disintegration. Water or soil tainted with sewage impurities necessarily contains ingredients derived from intestinal epithelium, which may there afford to the cholera poison—though, of course, in a minor degree—facilities for its growth and propagation similar to those afforded by the epithelial lining of the bowel. It is easy to see how this would explain some of the most important facts noted in connexion with the spread of cholera and its essential association with sewage impurities. Anything which contains intestinal epithelium, or into which some epithelium or the products of its disintegration may gain entrance, is a suitable nidus for the cholera poison. The richest field is the human intestine, because there exist there in perfection all the requisites for the rapid propagation of the poison—abundance of intestinal epithelium, moisture and a suitable temperature. But it is not the only field; for water or soil impregnated with sewage impurities also presents the conditions requisite to the vivification and reproduction of the cholera poison, not to the same extent as the human intestine, but to a sufficient and dangerous degree. In the bowel there is not only much more epithelium, but there is always the requisite temperature. It is doubtful whether, in temperate climates, water and soil are in winter warm enough to favour reproduction of the poison, though summer heat quite suffices. It is probably chiefly for this reason that cholera tends to spread so much more rapidly in warm weather than it does in cold. Cholera may also be conveyed by fomites. The rice-water stools contain not only intestinal epithelium but also the cholera poison, and both in great abundance—hence the danger of the disease being spread by clothes soiled by cholera discharges. The dried particles of cholera poison and of intestinal epithelium containing the poison in them may readily be scattered about in the atmosphere and find their way into drinking-water or articles of food, producing cholera in those who swallow them. That drinking-water is the chief vehicle by which the cholera poison gains entrance to the system, that the disease never travels more rapidly than man does, that it travels by the same routes that he travels, and that it affects only those places where drinking-water is tainted with sewage impurities are four propositions whose accuracy has been proved up to the hilt. The magnitude of the danger of drinking sewage-tainted water is twofold—firstly, the cholera poison is almost certainly reproduced in such water, at least in summer; secondly, so taken into the system it is brought quickly and in considerable quantity into direct contact with the epithelium of the gastro-intestinal tract, the nidus in which it specially grows and on which its action is specially manifested. On this view of the pathogenesis of cholera it is not difficult to explain the occurrence of diarrhœa and rice-water stools. Acute and rapid destruction of the intestinal epithelium could not fail to be accompanied by diarrhœa, for the local irritation necessarily attendant on such a process would cause free discharge from the mucous surface of the bowel, whilst the denuding of that surface of its epithelial lining would, by depriving it of its protective coating, increase its susceptibility and facilitate the flow of fluid from its surface. In addition to all this there is the great attraction of the cholera poison for water. The tremendous rapidity with which that poison is reproduced must lead to a rush of water to the seat of its reproduction—the epithelial surface of the bowel. There would thus be as the result of such a process, firstly, acute and free desquamation of the epithelial lining of the bowel, and, secondly, a free watery discharge from its extensive mucous surface. It is of these two ingredients that the rice-water stools of cholera are composed. They consist of intestinal epithelium suspended in a watery fluid. Such stools are characteristic of cholera. But shedding of the intestinal epithelium, though the most striking lesion of cholera and the most prominent of the local effects of the cholera poison, is not the only one. Wherever epithelium exists it is apt to be shed in cholera. Not only the epithelium of the human intestine, but human epithelium in general, seems to be a suitable nidus for the vivification and reproduction of the cholera poison, and no epithelium can be said to be free from its destructive action. So abundant is the epithelium of the gastro-intestinal tract, so rich a field does it offer for the reproduction and growth of the cholera poison and so marked are the symptoms produced there that any action which the poison has on other epithelium is apt to be lost sight of. But a careful examination of the phenomena observed in the post-mortem room shows that no epithelium possesses immunity from such destructive shedding as that which is so prominently noted in the intestine. "The epithelium of the nasal passages and mouth will be found almost completely destroyed." "The epithelium of the pharynx and œsophagus is shed in large patches." "Similar changes in the cells lining the stomach are observed." "We find the urinary tracts from the calyces of the kidneys to the extremity of the urethra lined with a layer of creamlike matter, consisting of detached and altered epithelial cells in combination with a sero-mucous fluid." "Similar changes in the cells lining the alveolar portion of the lungs are always to be seen and are often very extensive." "The epithelium of the pleuræ, the abdominal cavity and choroidal plexus is involved to a greater or less extent."[1] "Although the intestinal tract is the principal seat of the morbid actions, they are not limited to it. The kidneys are sometimes affected. In the female the uterine organs were similarly affected. The liver is free from disease except in some rare cases, where the lining membrane of the ducts and gall-bladder is the seat of the cholera process, their contents being then of the rice-water character."[2] Lebert, who paid special attention to the state of the kidney in cholera, found, even in cases which proved fatal on the first day of the attack, that "the microscope revealed a remarkable

[1] A Treatise on Cholera by C. Macnamara, 1870, pp. 339 et seq.
[2] Gull: Report on Epidemic Cholera, p. 119.

epithelial proliferation in the urinary canaliculi, with cloudy swelling of the cells." When recovery takes place and the kidneys again begin to act the urine is found to be only slightly albuminous and to contain numerous large epithelial casts and disintegrating epithelium. A very striking feature noted in connexion with the kidney affection of cholera—one by which it is distinguished from all allied renal troubles—is the fact that it leaves behind no tendency to chronic renal mischief. "A most remarkable circumstance, and one which has never yet been explained, is the fact that the nephritis of cholera almost never becomes chronic."[3] The explanation is that it is not a true nephritis with which one has to deal. The mistake which has been made is the very natural one of regarding it as pathologically the same as the renal troubles which arise in the course, or immediately in the wake, of the specific fevers. It is a totally different condition. In these the kidney structures proper are more or less irritated or even inflamed and the whole wall of the tubules participates in the process. In the cholera kidney the renal tissue is not affected; the mischief is confined to the epithelial lining of the tubules and does not extend beyond this into the walls of the tubules or the kidney structure. The epithelium is shed: that is all; but it is shed so freely that the canaliculi may be blocked. When this cast-off epithelium is got rid of, and its place taken by a new growth, as it very speedily is, the kidney is restored to its natural state. This shedding of the epithelium and blocking of the tubules, be it remarked, has no share in causing the suppression of urine noted in cholera collapse (the causation of that will be considered presently); rather does the suppression of urine favour the blocking of the tubules which the flow of water would tend to keep clear. This general shedding of the epithelium in cholera is a fact of some pathological significance. It indicates two things: firstly, that the action of the cholera poison is not limited to the bowel; and, secondly, that that poison gains access to and circulates in the blood, for only thus could it reach the epithelium of the kidneys, hepatic ducts, choroid plexus &c.

Cholera exists in varying degrees of severity. It may be so mild as to be indistinguishable from an ordinary attack of diarrhœa, or it may present the characteristic symptoms of the disease in a well-marked form, or the attack may be so very severe that the sufferer dies before there is time for the full development of the bowel symptoms. In this respect cholera is not different from other acute specific diseases. Scarlet fever may be so slight that a diagnosis cannot be made—the rash may not be sufficiently characteristic and there may be no sore-throat; or there may be slight sore-throat and no rash and the diagnosis be uncertain till the cuticle peels; or the attack may be so severe and the poison act with such virulence as to lead to the rapid development of typhoid symptoms, to collapse and to death within twenty-four or forty-eight hours. Typhoid fever may be so slight that the attack may last only ten or twelve days, the bowel lesion terminating in resolution; or it may be so severe as to lead to death in the second week, with extensive sloughing of the intestinal glands. And so it is with all the specific fevers. In all of them cases occur in which diagnosis is difficult in consequence of the mildness of the attack, and others in which death is brought about with unusual rapidity. These varying degrees of severity are dependent on three different agencies: firstly, the richness of the nidus of the parasite—the richness, that is, of the field in which the special poison finds the material requisite to its vivification and reproduction; secondly, the seat of the nidus; and thirdly, the quantity of poison received into the system. A rich nidus must be more fruitful than a poor one. It is mainly on the richness of the nidus that the amount of poison reproduced, and therefore the severity of the attack, depends. This it is which constitutes what is called individual susceptibility.

A typical and characteristic case of any disease is one which fairly represents the usual symptoms and course of the majority of cases which occur. In the specific fevers cases tending to death are the exception; in cholera they are the rule. The typical case of cholera is thus a much more serious illness than the typical case of any of the other acute specific diseases. Various agencies contribute to this result: firstly, the cholera poison is generally taken into the system in larger quantity than any other similar poison; secondly, it is singularly active in its growth; thirdly, its nidus is a very rich one. This nidus is the epithelial lining of the gastro-intestinal tract, but chiefly that of the small bowel. Here every cell is a nidus, and the whole surface is covered and coated over with them, thickly packed together. Let this be contrasted with the sparse distribution of the scattered glands which constitute the nidus of the typhoid poison, and the tremendous facilities afforded for the rapid growth and action of the cholera poison will be apparent and a reason given why the symptoms of cholera should be so quickly produced, why its course should be so rapid, and why the tendency to death should be one of its normal features.

Cholera collapse is not an affection of any one organ, but of the whole system. The blood is materially altered, the nervous system is profoundly involved, the circulatory system is gravely affected, the respiratory system is seriously disturbed, the functions of the liver and kidney are for a time suspended, the muscles are affected by violent cramps, there is a "tempestuous" diarrhœa with constant vomiting, tissue metabolism is almost in abeyance, the temperature of the body is subnormal, and the functions of organic life are all but suspended. If reaction does not soon take place these functions are altogether suspended and the sufferer dies. No affection of any one organ could possibly give rise to all these symptoms. To produce such general disturbance a poison must act on the blood, on nerve centres, or on both, and from what is known of the cholera poison it is *primâ facie* probable that such should be its mode of action.

The ultimate cause of each and every one of the phenomena noted in cholera is the cholera poison. This poison is a minute organism which is very largely reproduced in the system during an attack of cholera and whose morbific action is intimately associated with its organic development. It has already been pointed out that one of the most marked and peculiar characteristics of cholera is its great fatality. That means that during an attack of cholera the poison of the disease is reproduced with unusual rapidity and in unusual quantity—unusual, that is, as compared with what is observed in other acute specific diseases. All organisms have a definite action on their environment. In such organisms as those which constitute the poisons of the specific fevers and of cholera this action consists in the consumption of nitrogen and water. Their environment is the blood and tissues of the body. In their growth and propagation they therefore consume the nitrogen and water of the blood and tissues and the quantity consumed is directly as the amount of poison reproduced. In cholera the poison is reproduced in unusual amount and with unusual rapidity and the consumption of these elements is proportionately great.

Let the consumption of water be first considered. Amongst the essential phenomena of the specific fevers are thirst, dry skin and scanty urine. To assuage the thirst the sufferer drinks an enormous quantity of water, and yet the quantity eliminated is much less than in health. What becomes of it? It is not eliminated; it is not retained in the system as water; it is not utilised in building up tissue, for the tissues are rapidly wasting, and yet it disappears. The only possible explanation of its disappearance is that it is consumed by the millions of minute organisms which, it is known, are being reproduced in the system and which are also known to largely consume water in their growth. That is what takes place in the specific fevers. But in cholera the consumption is much greater and the results are correspondingly more marked. Instead of simply competing with the tissues, as do the poisons of the specific fevers, the cholera poison rides rough-shod over them and with an energetic vigour all its own appropriates to its own use all that it requires of the water which it finds in the system. Supposing that in a case, say, of typhoid fever one germ is received into the system, that this germ gives rise to four others and that twenty-four hours is the time requisite for this, there would be the following result: First day, 1 germ; second day, 4 germs; third day, 16 germs; fourth day, 64 germs; fifth day, 256 germs; sixth day, 1024 germs; seventh day, 4096 germs; eighth day, 16,384 germs; ninth day, 65,536 germs; tenth day, 262,144 germs; eleventh day, 1,048,576 germs; twelfth day, 4,194,304 germs; thirteenth day, 16,777,216 germs; fourteenth day, 67,108,864 germs. This is a reasonably probable demonstration of what takes place in typhoid fever and in all the specific fevers. The rate of reproduction of the poison is rapid enough to produce serious disturbance. As water is one of the main elements required both by the tissues in their metabolism and by the poison in its growth, increased consumption of water, with its consequent thirst, dry skin and scanty urine, becomes an essential symptom of the maladies to which these poisons give rise. The symptoms and course of cholera leave no doubt that the rate of increase of the poison is much more rapid than in the specific fevers and the consequences are much more pronounced;

[3] Lebert: Ziemssen's Cyclopædia of Medicine, vol. i., p. 247.

whilst its affinity for water is so marked as to be almost a special characteristic. Supposing that twenty germs are taken into the system in a draught of water (no doubt many more are often taken); supposing that each germ gives rise to four others, and supposing six hours to be the time requisite for this reproduction (a reasonable supposition), there would be the following result: Beginning of first day, 20; end of first day, 5120; end of second day, 1,310,720; end of third day, 335,544,320. Thus in three days there would be produced more than three hundred and thirty-five and a half millions of these organisms, every one actively consuming water in its growth. What must be the result of this? Clearly the consumption by the cholera poison of a great part of the water in the body. Just as the consumption of a moiety of the water of the blood and tissues by the poisons of the specific fevers explains the thirst, the dry skin and the scanty urine noted in the course of these maladies, so the very much greater consumption of water by the cholera poison may account for the raging thirst, the suppression of urine, the viscid state of the blood, the general arrest of functional activity, the cessation of metabolism, the consequent fall of temperature and the shrunken aspect of the sufferer. This demand for water, too, probably helps to produce a rush of fluid to the chief seat of the reproduction of the cholera poison, the epithelial lining of the small intestine, and the consequent free discharge of rice-water stools. This view finds support in the fact that the injection of warm fluids into the veins, though it produces for the time a marvellous amelioration in the symptoms of collapse, is accompanied by an increase in the watery discharges from the bowels.

There can be no doubt that the consumption by a foreign organism of the water of the blood and tissues, if only sufficiently active, would suffice to produce the phenomena of cholera collapse, nor can there be any doubt that during the course of cholera an organism having a marked affinity for water is reproduced in the system in enormous quantity and with great rapidity. For an explanation of the phenomena of cholera it is not therefore necessary to go further than the poison, which it is known is in active operation, and which it is also known is directly or indirectly the ultimate cause of all the symptoms noted in cholera. To a possible objection some reference must be made. An analogy has been drawn between the specific fevers and cholera, and the mode of action of the cholera poison has been illustrated by a reference to the mode of action of the poisons of these fevers, especially *re* the consumption of water. But, it may be said, if the cholera poison acts like the poisons of the specific fevers, how comes it that in these fevers the temperature of the body is raised, whilst in cholera it is subnormal? It happens thus. In the specific fevers the amount of poison reproduced is sufficient to disturb metabolism but not sufficient to arrest it; and the disturbance takes the form not of a diminution but of an increase. Tissue metabolism consists of two distinct processes: the taking up of new material and the giving off of old. Both actions take place in and around the capillaries and are contemporaneous. Whilst this action is going on, the contagium particles which are circulating with the blood in the specific fevers step in and appropriate to their own use part of the nitrogen and water which were on the point of being utilised by the tissues. The protoplasm of the tissues and of the contagium is formed at the same time and from the same materials. The moment at which the constructive store albumen of the blood is undergoing the change which normally results in the formation of organ albumen is that at which its nitrogen and water are appropriated by the contagium. The simultaneous action by which the worn-out organ albumen is converted into retrogressive store albumen is equally far advanced. The contagium steps in to deprive the tissues of much of what they require and are in the act of appropriating. No such agency intervenes to prevent the completion of the contemporaneous and equally far advanced action which results in the formation of retrogressive albumen and of urea. That action therefore continues as usual, and thus is brought about the physiological anomaly that a diminished consumption of nitrogen by the tissues is accompanied by an increased elimination of nitrogen by the kidneys, the increase being accounted for by the increased rapidity of the circulation. All this means increased tissue metabolism. Heat is a product of such metabolism; by causing increased metabolism the poisons of the specific fevers cause also a rise of the temperature of the body.[4] But it is evident that if any poison were capable of acting with such tremendous force and rapidity that it took not only a part but the whole of the nitrogen and water which were destined for the repair of the tissues such a poison would arrest metabolism more or less completely, and in so doing it would lessen to a corresponding extent the production of heat. It is thus that the cholera poison acts. With this diminished production of heat there is no diminution of elimination; for the action of the poison on the epithelial surface of the skin causes an increased flow of fluid to it and consequent increased elimination of heat. Increased elimination and decreased production necessarily cause a fall of temperature.

Attention must be drawn to yet another point of difference between the poisons of the specific fevers and that of cholera. In the specific fevers the nidus of the poison, and therefore the chief seat of its reproduction, is in the structure of one or more of the tissues—inside them as it were: in cholera it is on the epithelial surface outside the tissues, hence its most prominent symptom, profuse diarrhœa. Such a general consumption of water on the epithelial surfaces as takes place in cholera would effectually draw away the water from, and so tend to prevent the metabolic changes in, the tissues, whilst a similar consumption of water in the minute structure of the tissues would tend to cause increased consumption of water and increased tissue metabolism. In other words, the increased demand for water in cholera takes place outside the tissues; it therefore draws water away from them, so diminishing or arresting metabolism; whilst in the specific fevers it takes place in the structure of the tissues, so causing increased activity of the changes which normally take place there.

The wonderfully restorative action following the injection of warm water into the veins in cholera collapse shows how much the symptoms of that condition are due to the want of water in the blood and tissues. The transitory nature of the improvement thus brought about shows how rapidly the water thus injected is used up. The injection of the water supplies what the blood and tissues so much need; but it also supplies what the cholera poison so urgently demands and so quickly appropriates. In connexion with this it is to be noted that these intravenous injections, though they remove for the time the symptoms of collapse, cause an increase in the bowel discharges.

Sir George Johnson believes, and supports the view with his wonted ability, that contraction of the minute arteries, especially the pulmonary, is the cause of cholera collapse. That such contraction exists is most probable, but it is as a result, not as a cause; it is only part of the general cessation of functional activity consequent on the consumption of the water of the blood and tissues. The minute arteries are contracted because they are no longer stimulated to dilate; for it must be borne in mind that the state of activity of a minute artery is not contraction, but alternating contraction and dilatation, the dilatation being of the two the condition of greater activity.

One word on treatment. On this nothing that is satisfactory can be said. Under all methods of treatment mild cases seem to recover and severe ones to die. Two objects have to be aimed at in treating cholera: one is to check diarrhœa, the other is to prevent the partial arrest of metabolism which constitutes collapse from passing into the complete arrest of metabolism which constitutes death. The bowel lesion of cholera is peculiar; it may for practical purposes be described as an acute specific desquamative enteritis. Ordinary astringents are not of much service in such a condition. The per-salts of iron—persulphate, perchloride and pernitrate—given in full and frequent doses, are more likely than any other remedies to have a destructive action on the cholera poison and a healing action on the bowel lesion. The difficulty is their administration. Urgent sickness is so common a symptom in cases most calling for treatment that no remedy is retained. In the collapse stage medication by the mouth is of no avail. The injection into the veins of warm fluids is the only treatment which has ever really done good. Its effects are often marvellous, but unfortunately they are not lasting. If collapse essentially consists in arrest of metabolism consequent on the consumption by the cholera poison of the water of the blood and tissues, to supply that which is lacking is the rational line of treatment. This can be done only by intravenous injections. It is possible that the want of success which has hitherto attended this treatment may be partly due to faulty method, founded on a mistaken idea as to its mode of action. In treating the collapse stage of cholera, as in treating the advanced stage of the specific fevers, it must be borne in mind that the object which is desired is not the arrest of the

[4] The metabolic theory of fever here referred to will be found fully explained in my work, "The Germ Theory of Disease," published by Messrs. Macmillan in 1876, and also in my treatise, "Fever, a Clinical Study," published by Messrs. Churchill.

morbid process, but the keeping the patient alive till the disease has run its course. In advanced stages of fever this is done by giving beef-tea, milk, water, and if need be stimulants. In cholera one cannot give anything by the mouth, but by intravenous injections one may be able to keep tissue metabolism from coming to a stop and so tide the patient through an illness which would otherwise be fatal. The best solution for the purpose would be a warm alkaline fluid containing some defibrinated blood albumen. It should be given in quantity sufficient only to keep the patient going, care being taken not to give enough to lead to an increase of the diarrhœa. Nothing can prevent the cholera poison as well as the tissues from benefiting by the injections. The aim should be to keep the tissues going, trusting to be able to do so till the disease has run its course, till its poison ceases to be reproduced and till sickness and diarrhœa abate. The difficulty of treating cholera only brings into greater prominence what is, after all, the most important fact in the whole history of the disease—it is quite preventable. Out of the human body the cholera poison lives and grows in sewage-tainted water. Were water never so tainted, or were such water never used, cholera would never spread to Europe.

Cadogan-place, Belgrave-square, S.W.

MYXO-CHONDROMA OF LARYNX OF THREE AND THREE-QUARTERS YEARS' DURATION:

PARTIAL EXCISION OF LARYNX; RECOVERY.

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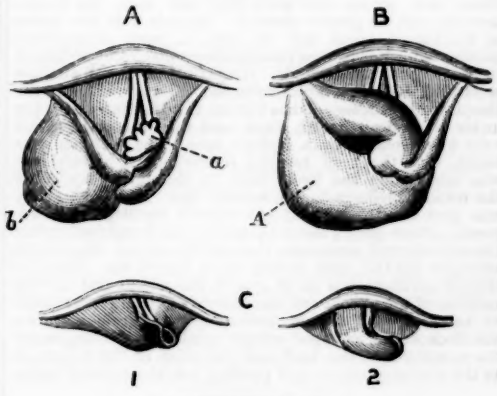
A MAN aged forty-four years began to suffer from hoarseness on Jan. 5th, 1889. He was temperate, had not previously had throat trouble, had not had syphilis and was a slight smoker. When I first saw him, on Jan. 26th, he complained of hoarseness and of a little pain when drinking. On examination I found slight granular pharyngitis and abductor paresis of the right cord, the glottis going backwards and to the left. No cause could be assigned for the paresis, for which iodide of potassium was ordered. He was then not seen for a year and a half. On Aug. 20th, 1891, the patient reappeared. He complained of shortness of breath, especially on exertion. For four days his inspiration had been stertorous and his voice very hoarse. Laryngoscopically a growth coming from below the glottis was to be seen covering the posterior part of the left cord. The right cord was motionless, the front of the left cord could be seen to abduct or adduct, and the brim of the larynx was deformed, the right arytenoid region being swollen and pressed somewhat forwards and inwards. Externally and posteriorly to the right arytenoid fold there seemed to be some swelling and the mucous membrane was œdematous. A week later the lower and posterior part of the right thyroid plate was felt externally to be prominent and hard, being displaced by the tumour. A piece of the growth, removed with forceps, on section was found to be myxo-chondromatous in structure. The growth was so hard that it was difficult to remove a piece. In September of the same year the patient saw Dr. Macdonald in consultation with myself, and a radical operation was recommended. By other consultants tracheotomy and thyrotomy were respectively recommended. In October all was arranged for an exploratory operation, to end in partial or complete excision of the larynx, whichever should be found most advisable. The patient, however, at the last moment decided that he would not undergo the operation. In February, 1892, it was arranged that he should come up to town to have tracheotomy performed. He had, however, such dangerous dyspnœa that I went down to him, and with the help of Mr. Hugill of Balham performed tracheotomy without chloroform, a laryngotomy being found impracticable on account of the growth filling up the space behind the cricothyroid membrane. For some time after this the patient went on comfortably, breathing easily, but speaking in a hoarse whisper when the tracheotomy tube was blocked with the finger. The swelling externally about the right plate of the thyroid became larger and harder, whilst internally the swelling behind and external to the right arytenoid got larger, displacing the arytenoid, so that the tumour

FIG. 1.[1]



LARYNGOSCOPIC VIEWS.

A.—*a*, Growth from cricoid projecting from below left cord. *b*, Growth pushing arytenoid region forwards and inwards. Aug. 13th, 1891.

B.—Complete occlusion of larynx, due: (1) to growth in cavity of larynx, (2) to paresis of cords, (3) to displacement of brim of larynx by mass A. Sept. 16th, 1892.

C.—1, Approximation of folds during respiration through tube. 2, Showing separation of folds during phonation. April, 1893.

at the posterior part of the left cord could not be seen. On Sept. 1st the patient was decidedly worse and the swelling externally about the right thyroid plate was larger; he was really voiceless, no air seeming to come past the

FIG. 2.

CRICOID CARTILAGE WITH GROWTH, REMOVED SEPT. 30TH, 1892.

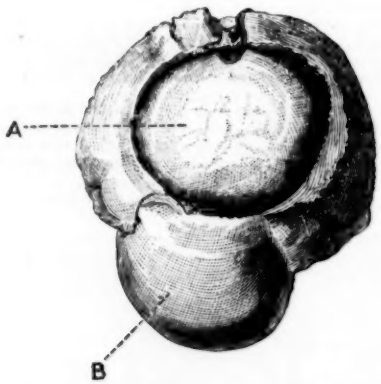
Anterior view of tumour after removal. Natural size. R A, Right arytenoid cartilage. T, Upper cartilaginous part of growth. M, Myxomatous portion of tumour. C C, Cricoid cartilage.

tumour when the tracheotomy tube was blocked. The man looked ill and worried and was rapidly losing flesh. He said he could swallow fairly well. He was evidently going to the bad and therefore consented to undergo an operation should

[1] In Fig. 1 in the drawing marked A that part noted (*a*) should not be made to look papillated. It should be rounder.

I recommend this after a consultation with Mr. Butlin, whose opinion I was anxious to have. On Sept. 16th Mr. Butlin examined the patient and recommended the removal of all the parts of the larynx affected and that the unaffected parts should be left. He thought the case a singularly favourable one for excision, the patient being in good condition and young, the neck thin and long, the larynx movable, and no glands affected. At this date the inside of the larynx could not be seen, a large œdematous-looking reddish-blue mass pushing the swollen right arytenoid region forwards and inwards. The patient could still swallow solid food. On Sept. 30th the patient, after admission to the Hospital for Diseases of the Throat, Golden-square, was put under chloroform by Mr. Lack, and then the tracheotomy tube was replaced by a Hahn's tube. The operation was begun with the head hanging somewhat. A vertical cut was made from the hyoid bone to the lower border of the cricoid cartilage in the middle line. Next a raspatory was used and the sides of the thyroid cartilage were exposed. Some grey gelatinous matter was found perforating the crico-thyroid membrane, the cricoid cartilage was greatly enlarged and the right thyroid plate bulged out. Next the thyroid cartilage was sawn open in the middle line and the cavities of the cricoid and the thyroid cartilages were found to be filled with a hard knobby growth, springing from the back of the enlarged cricoid cartilage, extending under the membrane of the back and the sides of the larynx up to the arytenoid region and pushing out the thyroid plates,

FIG. 3.



VIEW FROM BELOW, SHOWING OCCLUSION OF TRACHEA BY MASS OF GROWTH, A.
B, Posterior part of cricoid.

which were only of the thickness of a visiting card owing to pressure. The mucous membrane of the back of the larynx was so stretched over the growth that the right cord was barely recognisable. The inferior constrictors were next separated from the posterior parts of the thyroid and cricoid cartilages on both sides. To make room it was found necessary at this stage to make a horizontal cut along the lower border and right side of the hyoid bone from the upper part of the first vertical incision outwards to the right sterno-mastoid. The cricoid cartilage was now separated from the trachea and the latter plugged. The cricoid and growth were then pulled upwards and forwards, and the larynx behind separated as far as the posterior brim of the larynx. In doing this the mucous membrane of the œsophagus was slightly cut. The mucous membrane of the larynx and the soft structures came away with the growth, excepting the left arytenoid and the cartilage of Wrisberg, which were removed separately. The growth was then removed, together with the two arytenoids and cartilages of Wrisberg and Santorini and both true cords, and during the removal both recurrent laryngeal nerves were cut. The plates of the thyroid cartilage were found to be greatly thinned from pressure, and parts of each were snipped away in the middle line near where the growth perforated the cricoid and thyroid membrane. To sum up, all the larynx was removed with the exception of the epiglottis, of the posterior and superior borders of the thyroid cartilage, and some of the mucous membrane of the brim. There was very little hæmorrhage and only one ligature was needed. The trachea was now fixed to the skin by two silk sutures, the parts of the thyroid cartilage remaining were joined with silver sutures, the horizontal skin cut was sewn up with horsehair, the open end of the trachea was plugged with iodoform gauze, the skin and deep edges of the vertical incision were sewn together, the wound dusted with iodoform and plugged with gauze, and the patient, after an operation lasting two hours, was put to bed with the Hahn's tracheotomy tube *in situ* and also the soft stomach tube which had been kept in the nose since the previous night. Half an hour after the operation the pulse was 78, regular and fairly strong. No stimulant was needed then or at any time afterwards. He passed a very fair night, his temperature rising in the early morning to 101°. During the operation I had the efficient assistance of Mr. Harvey and Mr. Lake. On Oct. 1st (the next day) the wound was cleaned with boro-glyceride and iodoform gauze again used as a dressing. The Hahn's tube was changed, the patient's own tracheotomy tube being used, with the trachea above it plugged with iodoform gauze. He took his food well through the nose tube. After the first dressing he continuously improved. His temperature only once afterwards rose to 100° and after Oct. 6th became normal. The incision parallel to the hyoid and the upper

FIG. 4.

Artificial larynx. Actual size. 1. Upper tube in position. 2. Showing outline of upper tube.

part of the first incision healed by first intention. The wound rapidly filled with granulations and there was very little discharge. The chief trouble was with the nose tube for feeding, but considerable relief was afforded by syringing the nose with diluted glycerine of borax and myrrh solution, with which also the mouth was washed out. On Oct. 8th the feeding tube was removed from the nose and it was found that the patient could eat a chop, and could also swallow fluid well. After this the wound continued to fill up, and lest the passage at the upper part going into the mouth should entirely close a catheter was occasionally passed through the mouth down into the wound. On Oct. 11th attempts were made with indiarubber tubes &c. and from tubes of gas-piping—made after a model of Dr. Greville Macdonald, but with modifications—to make an artificial larynx that would fit the patient. On Oct. 12th a silver artificial larynx made to pattern was found to answer, the patient being able to speak in a monotone. It was found that without the upper tube of the apparatus he could speak best, but only for a short time, the sides of the upper passage soon so falling together that air would not pass up into the mouth. His tracheotomy tube was now replaced by the silver artificial larynx, which fitted into the top of the trachea. On Oct. 27th

he went home in good health and in November resumed work. Since the operation he had gained 14lb. in weight.

The tumour removed was almost entirely enchondromatous and very hard. Some soft myxomatous growth was found in front, where the crico-thyroid was perforated. The tumour sprang from the posterior part of the cricoid cartilage, completely filling it and also infiltrating and enlarging the sides of the cartilage itself. In the fresh state it weighed 11½ drachms and measured 1¼ in. from above downwards, its antero-posterior diameter was $1\frac{7}{8}$ in. and its oblique diameter from the right in front to the left behind was 1¾ in.

Considerable trouble was experienced in fitting the patient with an effective artificial larynx. A reed instrument tried was far too large to go into the trachea. Many experiments were made with upper tubes with differently shaped openings; finally, the patient himself found that his voice was loudest when a tube was used with two openings, one at the tip and the second larger one on the posterior surface about eight centimetres from the tip.

Remarks.—The abductor paresis when the patient was first seen was doubtless due to pressure on the right recurrent laryngeal nerve. As to the operation, it was difficult to plan beforehand what one should do, seeing that it was impossible to say where the growth originated. So far as examination by palpation and laryngoscopically could help, it seemed that the growth affected primarily the posterior part of the inner surface of the right thyroid plate. Again, the planning of the operation was rendered a little difficult by some uncertainty about the exact nature of the growth. One knew, as a matter of fact, that a growth had shown itself to be at one part myxo-chondromatous in structure, and therefore when rapidity of growth set in it seemed probable that there was a sarcomatous element in the tumour. Seeing the uncertainty of origin of the growth and also the uncertainty whether it was benign, the decision was made to thoroughly explore the tumour and then to remove it without attempting to do any typical excision of the whole or half larynx, but rather to save as much as possible of the sound framework of the larynx. The recurrent laryngeal nerves were both cut in raising up the cricoid, and for this reason the left arytenoid was removed. The right was of necessity removed with the growth. The thinned œsophageal mucous membrane stretched over the back of the growth was cut. The most interesting features of the case are: (1) the perfection of voice obtained through the vibration of the approximated sides of the brim of the larynx, the voice being more pleasant, louder and more natural than any I have heard produced by the artificial larynx furnished with a reed; (2) the occurrence of so large a laryngeal enchondroma is most rare and possibly unprecedented. The case was shown at a meeting of the Clinical Society on April 28th, 1893.

Harley-street, W.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of this society was held on Friday, May 19th; the President, Sir James Paget, took the chair punctually at 5 o'clock. The secretary read the report for 1892, from which it appeared that the available receipts had been £3265 17*s.* 6*d.*, the grants to the widows and orphans £3092, the expenses £247 3*s.* 10*d.*, leaving a deficit of £73 6*s.* A legacy of £20 had been received, eleven new members had been elected, twelve had died and six had resigned. The number of members at the end of 1892 was 312. Seven widows had died and three orphans had become ineligible for further grants; no fresh application for assistance had been received. The seven widows had received £4537 10*s.*, their husbands having only paid the sum-total of £203 14*s.* as subscriptions. The President announced the great loss the society had sustained by the death of Mr. Fuller, vice-president and treasurer, who as director and acting treasurer had been most zealous and indefatigable in the discharge of his duties and had never lost an opportunity of forwarding the interest of the society. It was suggested that a letter of sympathy and condolence in their sad loss should be sent to the family of the late Mr. Fuller. A vote of thanks to the editors of the medical journals for their great kindness in helping to promote the interests of the society was passed. The following gentlemen were elected directors to fill the vacancies caused by death, resignation and retirement—viz., Mr. Pettifer, Mr. Lenton Heath, Mr. Smith Turner, Mr. Thomas Smith, Dr. Duka, Mr. S. T. Hutchinson, Dr. Martin, Dr. Ryder and Dr. Champneys. A unanimous vote of thanks to the chairman for his kindness in presiding at the meeting closed the proceedings.

A RAPIDLY FATAL CASE OF ANGINA LUDOVICI.

BY E. VALENTINE GIBSON, M.D. EDIN.,
SUPERINTENDENT AND RESIDENT MEDICAL OFFICER, VICTORIA INFIRMARY, GLASGOW.

A MAN aged forty-nine, a moulder, sought advice at the out-patient department of the Victoria Infirmary, Glasgow, on March 6th, 1893, for swelling of the neck. He informed me that his trouble began about noon on the previous day, when he noticed a fulness beneath the lower jaw when he was going to shave. He did not shave, on account of a scab on the right side of the neck below the jaw, which had commenced a few days before as a pimple. During the afternoon and evening the swelling rapidly increased in size, extending up the sides of the neck behind the jaw and on to the chest. During the night he slept but little, feeling "hot and cold by turns," but had no distinct shiverings. He had been a heavy drinker and had been drunk on the evening of the 4th. His previous history was unimportant. On examination there was marked swelling of the tissues beneath the jaw, extending down the neck and front of the chest and upwards behind the angles of the jaws as far as the zygomata. In both these latter situations there were lines of demarcation corresponding to the attachments of the deep cervical fascia, to the rami of the jaws and to the zygomata respectively. The swelling was very marked below the jaw and extended around the neck. There was perceptible enlargement of the salivary glands. No lymphatic glands could be felt. The skin was of normal colour. There was no pitting on pressure and no pain on firm palpation at any part of the swelling, which felt firm and elastic. The floor of the mouth was considerably thickened, but the tongue was not swollen nor raised to any perceptible extent. There was no congestion of the fauces, but there was slight dyspnœa. Just beneath the jaw on the right side there was a scab three quarters of an inch in length and a quarter of an inch in breadth, with a pustular margin, very like a variola pustule, but having no areola. There were no red lines running from it. The circumference around the neck was twenty inches and a half and just below the zygomata twenty-two inches. His temperature was 97·8°. He did not wish to stay in the hospital, as he said he did not feel ill enough; but on my pointing out to him the serious nature of the affection—as I believed the case to be one of angina Ludovici—he consented to become an in-patient. As I had to leave the hospital on business for a few hours I told the house-surgeon to watch him closely. He was admitted to Mr. Maylard's ward at 1 P.M., had his dinner and a bath and went to bed in the side room. Shortly before 3 P.M. he asked the Sister to get him his spectacles as he wished to read. On her return in a few minutes she found him unconscious, lying on his back, his face and lips blue, foam issuing from his mouth, his eyes closed and no air entering his trachea. The house-surgeon (Dr. Logie) was quickly on the spot and performed tracheotomy by two incisions, placing the handle of the scalpel in the trachea, whilst artificial respiration was performed. The patient soon began to breathe violently and the respirations gradually became regular and rhythmical. A large tracheotomy tube was then inserted with some difficulty, as the swelling of the neck was very great. Coming in at 3 o'clock I made an incision in the middle line, from the tip of the chin to the hyoid bone, dividing the structures almost to the floor of the mouth. The wound gaped considerably, and a thin serous discharge came from it, the tissues appearing yellow and gelatinous, but no pus escaped. There was no odour from the discharge. The swelling now extended slightly over the face. The scab below the jaw was removed, and the ulcer, which appeared to be fairly healthy, was thoroughly scraped and antiseptic solutions and dressings were applied. Crepitations could now be felt under the skin of the chest and face. Air was freely entering the trachea. In the next few hours the swelling diminished somewhat in size, but spread further down the chest. The temperature rose in the evening to 101°, and the respiration

was 32. At 10 P.M. he could swallow very well; respiration had been carried on without difficulty, and he felt no pain.

March 7th, 9 A.M.—The patient has passed a good night, and there has been no difficulty with the breathing, very little mucus coming through the tube. His temperature gradually fell during the night to 98°; pulse 130, respiration 36. The gaping wound looks glazed and gelatinous, and a thin inodorous discharge has been escaping in small quantity. There is no evidence of pus. The ulcer, which was scraped, has scabbed over again, but there is now no pustular margin. The swelling has increased in size above the clavicles and has spread further down the chest. There is no pitting of the skin on pressure, and no redness. Fluctuation cannot be made out at any point. There is no congestion of the mucous membrane of the mouth or throat. The patient indicates that he is suffering no pain. Six ounces of urine were drawn off and found to be normal. 11 A.M.: The patient is becoming very feeble. Although air is freely entering the chest there are dyspnœa and considerable cyanosis of the lips and face. 2.40 P.M.: He is rapidly becoming more livid and the respiration is more rapid. He gradually became comatose and died at 3.15 P.M.

Necropsy, four hours after death, by Dr. Monro, pathologist to the infirmary.—The body was well nourished and was still warm. There was no rigor mortis. The neck was greatly enlarged by a swelling which in the lower part was remarkably firm, so that there was, as it were, a thick rim of indurated tissue over the anterior part of each lateral aspect of the neck, passing back so as to become continuous with the posterior border of the sterno-mastoid. In front of this muscle a well-marked groove was seen corresponding to the deep attachment of the fascia along the posterior border of the ascending ramus of the jaw. The swelling in the upper part of the neck was somewhat looser and was continued over the jaw on to the face, extending as far up as the upper eyelids. From the level of the upper eyelids downwards as far as the level of the nipples emphysema was distinctly appreciable. The head and neck were so firmly fixed—doubtless by the swelling described—that movements both antero-posteriorly and laterally were very limited. The neck itself was swollen at the back and the soft tissues over each shoulder were so much swollen that a distinct groove extended all round the base of the neck. There was nowhere pitting on pressure of the affected parts. A tracheotomy wound was present just below the cricoid and another incision extended from the skin to the hyoid bone. On dividing the soft structures on the front of the chest-wall the subcutaneous tissue presented, especially in its deeper part, a somewhat glistening appearance, which seemed to be due partly to minute bubbles of gas and partly to a gelatinous condition of the connective tissue. This contained a good deal of fluid, but even after pressing the fluid out of some of the tissue the jelly-like material was to some extent preserved, and it was found on section that this whitish appearance, due to bubbles of gas, extended as far as the nipples, whilst the gelatinous condition was present for some inches further down. There was no redness or discolouration of the skin except where a slight crust covered a small reddish ulcer measuring three-quarters of an inch by one-quarter of an inch, about an inch below the jaw on the right side. The anterior mediastinal fatty tissue was greatly swollen, with the peculiar œdema before described, and as it was cut air bubbles rose to the surface; the swelling was particularly apparent in the upper parts. There was nothing worthy of special notice in the heart; the left lung was slightly adherent posteriorly. The bronchial tubes contained blood-stained, frothy fluid and the large pulmonary vessels were engorged with blood. The organ itself was very emphysematous, especially at its upper part and free margins. At the part posteriorly corresponding to the adhesion there was a pale area on the surface of the lung, measuring three inches vertically and two inches transversely. On section this area was found to be the base of a wedge-shaped mass of lung tissue one inch and three-quarters in depth. The base of the lung was congested and œdematous and presented appearances resembling infarctions of smaller size and not so entirely pale as the one already described. Over the antero-lateral aspect of the upper lobe of the right lung there was a circular area three inches or more in diameter, mostly dark in colour, but with the central portion pale; the pale portion was here seen to be also wedge-shaped or pyramidal in form. The rest of the lung was emphysematous, but not extremely congested. The œdematous swelling, already described in connexion with the anterior mediastinum, was found after removal of the lung to involve the connective tissue of the posterior mediastinum also. The salivary glands appeared to be normal, although imbedded in gelatinous tissue. The tongue was not enlarged. The mucous membrane of the right bronchus was somewhat congested. There was well-marked œdema glottidis, the œdematous tissue partly resembling that found elsewhere, though perhaps not quite so firm. There was no evidence of the œdema of the connective tissue extending below the diaphragm. The spleen weighed six ounces and was somewhat soft. The kidneys were congested and contained a few small cysts. The capsules were difficult to strip off, but there were no granulations. A certain quantity of the fluid from the œdematous tissue was kept for examination, but no organism could be found. A portion of the subcutaneous tissue of the chest wall was examined and showed in parts great numbers of leucocytes, some with single but the majority with multiple nuclei. The piece of skin covered with scab was also examined and was found to be infiltrated, particularly at its deeper parts, with round cells. These were, however, much more abundant in the underlying subcutaneous tissue.

A bacteriological examination of specimens from this case, including the scab on the neck, has been made by Dr. J. Wilson Cameron at the Royal Infirmary Laboratory, but no specific pathogenic organisms have been discovered.

Remarks.—This case practically agrees with all Dr. Ludwig's diagnostic points given by Mr. Parker in THE LANCET, Oct. 25th, 1879—viz., (1) "The slight inflammation which even when it exists disappears after a day or two and which if it persists may be looked upon as symptomatic." There was never at any time congestion of the throat. (2) "The peculiar wood-like induration of the connective tissue, which will not receive impressions." The connective tissue differed from the brawny feel of the indurated tissue of commencing cellulitis, feeling more as if there were a solid jelly-like material underneath. This condition was modified somewhat after the tracheotomy, owing to the emphysema. There was never any pitting on pressure of the affected tissue. (3) "The uniform spread of this induration, so that it is always sharply bounded by a border of entirely unaffected cellular tissue." The disease spread uniformly, but was only at first bounded sharply at the attachment of the fascia to the zygomata and rami of the jaws, spreading later over the chin on to the face, though not extending above the upper eyelids. There was no sharp line of demarcation along the front of the chest, the disease gradually fading away into healthy tissue. (4) "The hard swelling under the tongue with a bolster-like swelling along the interior of the lower jaw, of deep red or bluish-red colour." The floor of the mouth was considerably thickened, but there was no congestion of the mucous membrane. (5) "The escape of the glands, although the disease attacks their cellular tissue surroundings, or may even commence in it." None of the salivary glands were enlarged, and they all appeared to be normal in size and colour, although they were embedded in the gelatinous tissue. The points of especial interest in the case are: (1) The suddenness of the onset and the rapidly fatal termination—forty-one hours after the first symptom was noticed. (2) Was the small ulcer under the jaw the originating point of the disease? The swelling was not more marked around that point than elsewhere, nor was there any sign as if the disease were further advanced at that spot. At this point one would have expected, if this had been the focus of the disease, that there would have been evidence of greater local disturbance, or at least that the ulcer would have looked markedly unhealthy. (3) The low temperature (97·8°) that existed on admission, although the disease must have been rapidly spreading. (4) The entire absence both of pain over any part of the swelling on palpation and of any great discomfort until the respiration was seriously interfered with. (5) Absence of gangrene of the tissues or even redness of the skin and the entire absence of pus. This, no doubt, would be accounted for by the early death of the patient—which seems to have been caused by pulmonary infarctions, the symptoms a few hours before death pointing to that condition,—the disease not having lasted long enough to have caused gangrene. Early intubation and numerous free incisions seem to be the course of treatment indicated by the experience of this case. If intubation of the larynx had been performed immediately on admission the extensive emphysema which followed the performance of tracheotomy would have been avoided.

I am indebted to Mr. Maylard for permission to report this case.

Victoria Infirmary, Glasgow.

COMPOUND COMMINUTED FRACTURE OF THE SKULL:

WITH EXTENSIVE LOSS OF OSSEOUS COVERING TO THE BRAIN; RECOVERY.

BY H. A. LEDIARD, M.D. EDIN., F.R.C.S. ENG.,
SURGEON TO THE CUMBERLAND INFIRMARY.

ON the night of Dec. 20th, 1892, a carter aged twenty-four was brought to the Cumberland Infirmary suffering from a severe injury to the head. It appeared that he was returning on an empty lorry with two other men and that, when sitting in the front part of the waggon, he probably fell off whilst asleep and was run over, for his companions suddenly missing him retraced their steps for about a mile and found him on the road unconscious and bleeding from a wound on the right side of the head. He was placed by them on the waggon and brought into the hospital, a distance of twelve miles. On admission to the infirmary Mr. Mathews, the house surgeon, found the patient to be unconscious and breathing stertorously; the scalp was reflected from the greater part of the right side of the head and was hanging over the

FIG. 1.

right ear and face; the bone was seen to be broken up into large plates, which were partly loose and tilted out of position and evidence of extensive hæmorrhage was present. Both eyes were ecchymosed and the lids swollen and there was bleeding from both nostrils. The injuries were, however, limited to the head. It was found needful to administer a little chloroform to restrain unconscious movements, and it was then seen that the soft parts were laid open from near the vertex towards the angle of the right orbit, as shown by the cicatricial line which crosses the shaded area in Fig. 1. The condition seemed so hopeless and the fracture so extensive that I almost hesitated to touch the patient; but on removing one bit of bone after another and finding that the dura mater was uninjured, there was more encouragement given to make the best of the case. The bone removed corresponded to the area shown on the engraving by the dark shade, and it will be seen that portions of the temporal, parietal and frontal bones were included in the injury. From the site of fracture the fissures extended in all directions towards the orbital plate on the right side, the base of the skull in the temporal region and backwards towards the occipital bone. All blood which had accumulated between the vault and the dura mater was syringed out, and after inserting a large horsehair drain the scalp was stitched up and the patient removed to bed. A blue appearance of the dura mater within the area of fracture was suggestive of subdural hæmorrhage, but no symptoms of cortical lesion appeared. For three days the man was in a drowsy condition with a slow pulse (60) and passing urine involuntarily. In ten days, however, the wound healed, power was recovered over the bladder, he ate and slept and expressed himself as feeling quite well. The brain was seen to pulsate over a large area and, with the exception of a drooping of the right eyebrow and a smoothing of the wrinkles on the right forehead no trace of paralysis appeared. The patient was discharged on March 2nd after being provided with a protection of leather and metal for the right side of the head. It is to be observed that the hearing when tested was nearly as good on the right side as on the left. The engravings, which are from photographs taken in the ward, show the area of brain uncovered by bone, a pencil mark on the skin having previously defined the edge of the bone. The four vertical lines seen in Fig. 1 indicate the disappearance of the uncovered surface of brain behind the zygoma. The engraver has accurately represented the paralysis of the right occipito-frontalis muscle in Fig. 2. The broken fragments when fixed together measured eleven centimetres long by six centimetres broad but the actual aperture in the man's head was probably somewhat larger, as all sharp points and edges were smoothed away with pliers. I have had many head injuries under observation, but the present one strikes me as exceptionally remarkable on account of the great destruction of bone without injury to the dura mater, and

FIG. 2.

herein, no doubt, lay the reason why the man made so good a recovery. Doubtless larger spaces have been bared by the trephine for operative procedure on the brain without harm resulting, but these circumstances are wholly different from the rude violence of a cartwheel. As regards temperature, the highest point reached was 103° F. two days after the accident, and then there was an almost immediate fall to about normal.

Lowther-street, Carlisle.

THE SURGICAL AID SOCIETY.—The promoters of this society have recently resolved to extend its operations by the formation of branches in various provincial towns, and the citizens of Manchester have in public meeting expressed their wish to participate in the benefits of such an auxiliary. The mayor is to act as president and the committee will be composed of gentlemen of high standing in the city.

NOTTINGHAM CHILDREN'S HOSPITAL.—The annual meeting of the friends of this institution was held on the 18th ult., and a very favourable report was presented with regard to its pecuniary resources and the amount of good work accomplished by its means. The number of patients cured or relieved during 1892 was larger than in any previous year, whilst the income of the charity was steadily increasing. Six cots are now supported by special donations, and two of them have now been endowed. A resolution was moved and carried that the Duchess of Portland be asked to act as president during the ensuing year.

STENOSIS OF THE TRACHEA AFTER TRACHEOTOMY.

BY PRIESTLEY LEECH, M.D., B.S. LOND., F.R.C.S. ENG.,
SURGEON TO THE HALIFAX INFIRMARY.

THE following case is interesting for several reasons: (1) It is an example of what is thought to be a rare occurrence—namely, stenosis following the use of a metal tracheotomy tube; (2) the recovery in so young a child after tracheotomy and thyrotomy shows, I think, that the well-known fatality of tracheotomy in young children is due not so much to the operation itself as to the disease—diphtheria—for which it is generally performed; (3) it also shows the necessity, which has so often been insisted upon, of replacing the metal tube as soon as possible by a rubber tube; (4) it is also another instance of the necessity for exploration of the larynx and tracheotomy wound when the patient is unable to breathe through the natural passage after tracheotomy for a foreign body; and (5) the sudden death of the child some time later (probably from a recurrence of the stenosis) indicates the advisability of keeping under observation the cases of tracheotomy in which there has been stenosis of the trachea. At the time this case occurred the paper by Messrs. Pitts and Brook on "Stenosis of the Trachea and Larynx"[1] had not been published or I might have tried intubation to overcome the stenosis. If, however, another case were to present itself, I think I should be more inclined to try the T-shaped tube described by Mr. C. J. Bond in THE LANCET of March 7th, 1891, until the tendency to contraction had been overcome; for the contraction in my case was confined to the end of the trachea immediately above the tracheotomy wound. I see no reason why this T-shaped tube should not be made of strong rubber, thus minimising to some extent the irritation caused by a metal tube.

The patient, a male child nine months old, was sent on Sept. 9th, 1890, to the Halifax Infirmary by Dr. Windle of Ovenden. The mother said the child had been playing with a nutshell in its mouth, and whilst doing so had suddenly commenced coughing and the nutshell had disappeared. She had been unable to find the nutshell, and as the child continued coughing and began to breathe in a peculiar manner she had taken it to Dr. Windle, who immediately sent her to the Halifax Infirmary.

On admission the child's respiration was stridulous, the stridor was heard whilst standing near the child and without any auscultation. My colleague, Dr. S. C. Smith, saw the child with me and we came to the conclusion that tracheotomy ought to be done at once. The child was placed under the influence of chloroform and I immediately performed tracheotomy. The low operation was done and a bivalve tracheotomy tube was used. The child was placed in a cot and directions were given to the nurse that any vomit or expectoration was to be kept and carefully examined to see if the piece of nutshell came away. Four days later, no nutshell having been found, the tube was removed and the finger placed over the tracheal opening, but dyspnœa immediately occurred and I was obliged to replace the tube when respiration became normal. On Sept. 16th the child was again chloroformed and an attempt was made to find the nutshell by a probe passed into the larynx from the tracheal wound, but in vain. No nutshell having been discovered either in the expectoration or in the vomit, and the child being still unable to breathe through the natural passage, I was driven to the conclusion that the piece of shell was in the larynx and that thyrotomy ought to be performed. On Sept. 20th the thyroid cartilage was exposed by a median incision and divided with a scalpel. On holding the two halves apart no nutshell was seen and the interior of the larynx was perfectly normal. A curved, blunt-pointed director was then passed down the trachea from the larynx but it was arrested at the lower end of the proximal portion of the trachea. The trachea was then slit from above downwards where it was found that the obstruction was due to cicatricial contraction of the portion of the trachea in contact with the upper part of the tracheotomy tube. No foreign body was to be seen. The tube was replaced at a higher point in the trachea—i.e., nearer the larynx in order to prevent recontraction of the stenosed part—and the wound was sewn up, no stitches being placed in the thyroid cartilage as the two halves came well together. The patient went on very well and four days later, the child being able to breathe through the natural passage, the tube was removed. The wound gradually closed and the child was discharged from the hospital on Oct. 16th, perfectly well and able to say "mamma," the only word it had been able to utter previously to the operation. I learnt afterwards from Dr. Windle that the child died some weeks later quite suddenly, probably from subsequent stenosis accompanied with some spasm of the larynx or trachea.

King Cross, Halifax.

[1] THE LANCET, Jan. 16th, 1891.

RADICAL CURE OF HERNIA, THE RESULT OF INFLAMMATION SUBSEQUENTLY TO HERNIOTOMY.

BY SURGEON-MAJOR D. CHARLES DAVIDSON, I.M.S.,
CIVIL SURGEON, SATARA, INDIA.

IN performing the operation of herniotomy the primary object of the surgeon, it is needless to say, is to remove the obstruction causing the strangulation, but there is a secondary object—viz., to effect as far as practicable such a cure as will prevent the descent of the gut that had indirectly led to the strangulation which had necessitated the operation. In exceptional instances the means usually employed for this purpose cannot be resorted to, and this occurred in the case mentioned below. Occasionally, under such circumstances, nature brings about what the surgeon for sufficient reasons had not attempted to perform. In the undermentioned case the patient was in such an exhausted condition that it was necessary to get him off the operating-table as quickly as possible after dividing the stricture and reducing the hernia.

A Mahomedan aged about thirty-eight, by trade a shopkeeper, was admitted into the Civil Hospital, Satara, on March 2nd, 1893, suffering from strangulated inguinal hernia. He stated that he had been ruptured for a considerable time and that on two occasions there had been difficulty in reducing the hernia. He was put under chloroform and reduction by taxis was tried, but without avail. Herniotomy was therefore performed in the usual manner, the sac being opened, and the bowel, which was of a port-wine colour, returned into the abdominal cavity without any difficulty. He was in a very exhausted condition, and it was considered unadvisable to prolong the operation beyond the time that was absolutely necessary. The incision was closed by means of catgut sutures and a dressing of iodoform and cotton-wool was applied. There was no vomiting after the operation, but the patient had four stools slightly tinged with blood. He passed a good night. On the following morning the temperature was 99·8°, which went up to 101·6° in the evening. The bowels were moved four times, the stools being tinged with blood. A dose of laudanum checked the diarrhœa. On the 5th the temperature went up to 103°. On the 7th the scrotum was found to be enormously swollen and œdematous, with much thickening of the structures round the cord. The temperature was 103° and there was some discharge of pus from the wound. At first sight the swelling of the scrotum appeared as if caused by a return of the hernia, but such was not the case, it being due to inflammation of the testicle and scrotum. Cold applications were applied. On the 8th the temperature in the evening was 103·2°. The bowels had not been moved since the 3rd.

March 9th: The bowels were not moved; there was no vomiting; temperature 101°.—11th: The bowels were moved for the first time since the 3rd; the morning temperature was normal, the evening temperature 100°.—15th: The swelling of the scrotum has much subsided.—18th: The patient is free from fever; the swelling is subsiding. Up to

April 4th, when he was discharged cured, the patient continued to do well, being free from pain, and the swelling, which consisted of œdema of the scrotum and inflammatory enlargement of the testicle, had almost entirely disappeared, only slight thickening of the latter still remaining. The wound was completely healed and he could walk about without discomfort or inconvenience of any kind. On making him stand and cough no impulse or tendency to return of the hernia could be felt. The patient stated that previously to the operation he could not stand without the bowel coming down. He was carefully examined by Surgeon-Captain J. Jackson, I.M.S., and myself previously to being discharged, and we both came to the conclusion that so far as could be seen the case was one of radical cure of hernia due to the inflammatory action which had occurred.

The two interesting features in this case are the sudden enlargement of the scrotum following the operation, which at first sight might have been mistaken for a return of the hernia, and the, to all appearances, radical cure which followed the inflammation.

Satara, India.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

PUERPERAL FEVER OR TYPHOID FEVER?

By G. A. VAN SOMEREN, M.D. EDIN.

ON Feb. 28th I was sent for to see a patient, and on arrival I found that she had had a severe rigor, from which she had just come round and was perspiring profusely. Taking the temperature, I found it to be as high as 104·5° F. On inquiry I ascertained that she was pregnant and expected to be confined every day, having passed the time she had calculated upon. I also learned that she had been ill and out of sorts for the past nine or ten days, suffering from headache, pains in the back and limbs, diarrhœa and want of appetite. As typhoid fever was prevalent I thought it well to be on my guard, though feeling puzzled as to the occurrence of such a rigor at this stage. I could ascertain nothing else pointing to typhoid fever. There was no gurgling at the iliac fossa and no rose spots. I prescribed quinine, sulphuric acid and nux vomica and warned the friends that probably the confinement would soon take place, when I was to be sent for. I may say that there were no signs whatever of labour at this period. The next day I visited the patient and found that she had been confined at six that morning. There had been a second rigor at 2 A.M. She seemed well and cheerful and the temperature was 99·3°. The pulse, however, was quick. I asked the nurse if all the afterbirth had come away and was assured it had. Not having been sent for at the confinement I concluded that my further services would not be required and took my leave. This was on March 1st. I heard no more of the case till March 7th, when I was again sent for and found the patient in a very low state, with quick, thready pulse, colliquative sweats, extreme pallor, and constipation, the temperature being 101·4°, but the discharge was "all right" the nurse assured me. I again inquired concerning the afterbirth and was assured that it all came away. I at once ordered stimulants and prescribed the mixture originally ordered. The patient's whole mind was concentrated on a pain at the root of the nose and over the eyes, to which she never ceased to draw my attention and for which she was urgent to get relief. She had a hard hacking cough with tenacious sputum. A few days later she developed fainting fits, and it looked as if the heart would fail altogether, so I ordered a digitalis, nux vomica and sulphuric ether mixture, which acted very efficiently. My suspicions, however, were by no means allayed as to the question of the entire expulsion of the afterbirth, and these were strengthened and confirmed by the coming away of a piece of the placenta and the supervention of an offensive discharge. As my patient seemed to be in a very precarious condition, I determined to open and thoroughly explore the uterus. Douching the vagina well with a hot corrosive sublimate solution and anointing my finger and hand with eucalyptus ointment, I introduced my hand into the vagina and my finger into the uterus. I was soon able to force two fingers in, and found a mass of putrescent detritus, which I speedily removed, only to find more attached to the uterine fundus anteriorly, and for which I had to have recourse to the curette before I could properly detach and clear it out. This I finally succeeded in doing, and finished by giving the interior of the uterus a thorough and prolonged douching with hot iodine water. From this time the patient seemed to improve, though the colliquative sweats continued for a while and severe diarrhœa supervened, threatening indeed at one time to endanger life. I did not care to stop it entirely, viewing it as a salutary drain set up by the system for casting off impurities imbibed by the circulation. However, I ordered sulphate of copper with opium pills to keep the action of the bowels within bounds, which proved very successful. The discharge from the vagina soon became inoffensive and finally ceased altogether. The temperature, however, kept up for many days and did not become normal till March 28th. Before this I had begun to give tincture of iodine with carbolic acid, two drops every four hours, and that soon brought things down to the normal; the sweats quite passed away and the bowels became regular. The colour of the motions had been like that of pea soup, after a while they were grey like putty, and then became like those of a child. I will here give the dates approximately. I first saw the patient on Feb. 28th. She was confined on March 1st. I saw her again on March 7th and removed the remnants of the placenta on the 13th. I prescribed iodo-phenic acid on the 26th. The temperature was normal on the 28th. She got up on the 31st. Up to the time that I began the iodophenic acid the temperature kept above 101°; after that it steadily went down. Closer inquiries elicited the fact that the rigor in which I saw the patient was the second; she had had one before then, though not so severe. Thus she had three rigors before she was confined. That my patient had puerperal fever I consider there is not a shadow of a doubt, but was she sickening for something before then, and what was it? She is the first patient I have had with puerperal fever. Indeed, one rarely hears of it here, and that in spite of the fact that pieces of placenta and shreds of membrane are frequently left behind and require removal. In the very same week in which I was first called to this patient I had been sent for to see another woman, in whom there was post-partum hæmorrhage due to a large piece of placenta having been left behind by the midwife so-called, and removal of this was followed by a perfect recovery in a week without a bad sign attributable to it, and that notwithstanding my having had to operate without douche or anything but eucalyptus ointment; and this case does not stand alone. Why then did puerperal fever occur in the former case? My own impression is that whatever the patient had been sickening for had so weakened her vital forces and the resistive capacities of the tissues or the active capabilities of the phagocytes that she fell an easy victim to the microbes of putrefaction. But what was the nature of this affection? Was it typhoid fever? Is it conceivable that a person could resist successfully, as my patient did, the threefold danger of typhoid fever, childbed and puerperal fever? Of course, the nurse was speedily changed. Large quantities of brandy, liquor carnis, strong broths, milk and barley water, and milk and eggs were given, and she took nourishment well all through. She was sponged with cold water and vinegar as circumstances called for it, and was not allowed to exert herself. The child was bottle-fed from March 7th, and is doing well. Such is the record of this case. There are other points of interest in it, but I fear I have already trenched too much on valuable space.

Orange, New South Wales.

ON A CURE FOR "INCURABLE" METRORRAGHIA.

By JAMES BRAITHWAITE, M.D. LOND. &c.,

OBSTETRIC PHYSICIAN TO THE LEEDS GENERAL INFIRMARY, LATE PRESIDENT OF THE NORTH OF ENGLAND GYNÆCOLOGICAL SOCIETY.

IN November, 1889, I saw with Mr. Holmes of Burmantofts a woman said to be suffering from endometritis. She was the wife of a miner, thirty-four years of age, and had had four children, the last ten years previously. Menstruation was very profuse and in the intervals she passed, to use her own words, "blood and corruption." The case had been for a long time in the hands of a medical man who had pre-

ceded Mr. Holmes in the care of the case. The patient was ultimately taken into the infirmary, as the loss of blood, which was the principal symptom, became greater. The uterus was, by the passage of the finger after dilatation, ascertained to be empty. The sound passed only two inches and a half. The uterus was exquisitely tender to touch. After exhausting all treatment likely to be of use, including very free curetting and the application of perchloride of iron to the uterine cavity, I ultimately in September of the following year removed the ovaries and tubes, with the view of arresting the loss of blood and relieving the pain. The patient was by this time a confirmed invalid. The tubes were in a state of chronic inflammation and the ovaries adherent, but not to the eye diseased in their interior. The patient after this improved and was by the end of three months able to do her housework. She then fell downstairs and hæmorrhage from the uterus recommenced. She was again admitted to the infirmary, but in spite of the use of perchloride of iron again and subsequently fuming nitric acid applied to the uterine cavity a daily hæmorrhage continued. I felt completely defeated and contemplated hysterectomy; knowing, however, the powers of chloride of zinc from constantly using it in the treatment of cancer, it occurred to me to apply this to the uterine cavity, with the view of causing a slough of the interior and so completely obliterating it. I therefore, after dilating the cervical canal once more, applied to the whole interior cotton wool wetted with the thickish fluid resulting from deliquescence of the sticks of solid chloride. This was wound round a piece of iron wire slightly curved at the end. The length of the cavity was first measured and the wool and chloride adapted accordingly; but the fluid was more sparingly spread on the wool at the proximal end, and it was so applied that it could not run off and overflow. The wire with its burden of wool was left *in situ* for twenty-four hours and then withdrawn. In the course of a fortnight a slough of the whole interior of the uterus came away about a quarter of an inch thick. The cavity became after this completely obliterated and the uterus correspondingly smaller and more shrunken in size. This of course cured the hæmorrhage, for there was no longer any place to bleed from. The patient was discharged much improved in health. As she had already undergone oöphorectomy, the loss of the uterine cavity was of no importance, but I can easily see how different the case would have been if the ovaries had been still active and intact. On reflecting upon this case it seemed to me that we might produce an action short of obliteration of the cavity by the use of this remedy and consisting of merely a superficial removal of the surface to a very slight extent, in cases of a desperate character in which other remedies failed.

On Oct. 23rd, 1892, I saw with Mr. Pickles of Leeds the wife of a tradesman fifty-five years of age. There had been no menopause or any signs of it; on the contrary, she had menstruated regularly every month up to April, 1891. The periods then commenced to be excessive, lasting fourteen days and sometimes only one week clear. This had gone on more or less until I saw her, but the hæmorrhage had become continuous. The uterus was freely curetted after dilatation. Nothing was removable except by such forcible pressure as to scrape away the mucous membrane itself. The organ was not materially enlarged, the sound passing two and three-quarter inches. The finger exploring the cavity detected nothing and bimanually no irregularity of outline or indication of fibroid could be detected. Chloride of zinc was applied to the interior for a few minutes, but the effect was found to be transient and ineffectual. Ultimately, on Feb. 21st last, the zinc was used with the object of destroying the interior and producing atresia. On April 14th I received a letter from Mr. Pickles to say that he found the interior of the organ quite closed. The patient was much better in consequence of the cessation of the hæmorrhage. I have had a number of cases in which the zinc has been applied for a few minutes only, but although a powerful styptic I have found it not permanently successful. It must either be used to produce atresia or not at all. Of course cases of such intractable hæmorrhage as to require such a remedy are very rare, and the remedy is, to a certain extent, an empirical one. It can only be applicable when a cause sufficient to explain the hæmorrhage cannot be found, and when the latter becomes dangerous to life. Still there are such cases, and there are a certain number on record in which the uterus has been removed entire after failure of all other treatment. The effect of atresia on the uterine cavity may be expected to be very different from that of removal of the uterine appendages. In the latter case the menopause is artificially induced and consequently the system produces a less amount of blood than before the operation. When, however, the ovaries are not interfered with—as in the zinc treatment—the formation of blood continues undisturbed, and consequently it is more suitable when the system is exhausted by hæmorrhage. When a woman has bled beyond a certain amount she never recovers it completely, but remains anæmic and more or less an invalid for life. This plan of treatment affords a means of recovering the loss, for the formation of blood will continue as before. It is very important to use the thick fluid only which results from the deliquescence of the sticks; and it must have recently deliquesced, otherwise much of the zinc will be deposited and lost as carbonate. It is very liable to run over and into the vagina, and if so will produce a slough. To avoid this, a plug of cotton wool containing vaseline and carbonate of soda should be applied at the summit of the vagina; this quite neutralises any excess. Finally, I may say that in this treatment we have a resource—an ultimate resource—after the failure of everything else except hysterectomy; safe in application and effectual in accomplishing its end, but in itself undesirable and to be avoided unless life and health are very seriously threatened.

Little Woodhouse, Leeds.

EXPECTORATION OF BRONCHIAL CASTS AFTER HÆMOPTYSIS IN PHTHISIS.

BY JAMES MANN WILLIAMSON, M.D. EDIN.

IN THE LANCET of May 20th, 1893, an interesting paper was published by Dr. R. W. Richards calling attention to the occasional expectoration of bronchial casts after hæmoptysis in phthisis. The fact that such a condition can actually occur, however rare it may be, deserves fuller recognition; and, keeping in mind the difficulties between phthisical hæmoptysis on the one hand and plastic bronchitis on the other, every instance seems to be worth recording. I have before me two branching, tree-like clots, evidently casts of a medium-sized bronchus, and exactly answering Dr. Richards' description. They are both from one patient and they readily attracted my attention in examining the blood that had been expectorated. Slight and transient hæmoptysis last February was the first sign of anything wrong with a chest which Dr. Ord had pronounced healthy in the previous November. The hæmorrhage recurred early in March, and it was then that the casts were coughed up. Extending over nearly a week there were several sudden, copious bleedings of from two to six ounces, each occupying only a few minutes, then disappearing entirely for several hours at a stretch, to recur time after time in the same explosive fashion. The loss of blood amounted altogether to not less than two pints. A succession of explosive attacks of hæmoptysis, separated by several hours of freedom, is often taken to indicate a cavity with an aneurysmal dilatation in its walls; but this need not be so; it can occur in the cases now under notice. In this individual patient there is no cavity. The disease at present (May) is limited to quite a small area at the left apex and still remains in a very early stage. The casts were not seen before the second day of the attack. They were red branching moulds of the bronchi, about two inches in their greatest length, having the consistence of soft jelly and preserving their form when removed into a bowl of water. To all appearance they were extensions downwards into the next bronchial subdivisions, of the clot which had formed against a rupture in a vessel in the bronchial lining. The peculiar shape and extent of the clot seemed best explained by supposing that the point of vascular rupture was at or near the angle of subdivision of a bronchus, where close and immediate apposition of a clot would not be so easily obtained as it would be midway along a bronchus. In my patient, a young lady of twenty-three, the temperature rose from normal to 102° on the second day of the bleeding, and it continued high not only throughout the week of the bleeding but for three weeks more. Since then it has followed a minor hectic range. Dr. Ord has seen the temperature rise from bronchial plugging, and the late Dr. Wilson Fox said that in plastic bronchitis there may be pyrexia in the early stages. The presence of the moulded clot in the bronchi may explain why my patient's temperature rose so abruptly during the

hæmorrhage; and the subsequent time that it remained high perhaps covered the period required for the disintegration and removal of the final clot. The case was notable for the great mobility of the vaso-motor system, the face flushing and blanching on the least emotion. The blood-supply of the body was not deficient, but the arteries were small and the tension low, suggesting that the ruptured vessel was more probably a vein than an artery. The heart was normal. The sputa now contain a few tubercle bacilli. On the maternal side an uncle died of hæmoptysis, and on the father's side there has been phthisis in the family.

A closing word as to treatment. It is clear that, when these branching clots exist, cough is far more likely to be set up than in cases in which the clot is small and simple. A more extensive bronchial surface is submitted to irritation. This carries with it a greater liability to the displacement of the stanching clot and the re-establishment of the bleeding. Rest of the parts is essential. Here, then, is surely an indication for treatment of this variety of hæmoptysis. Ergot, which was freely tried, failed; no doubt because it did not fulfil this primary indication. With Dr. Ord's concurrence opium was given instead and as a sedative. Half-grain doses were taken every four hours at first and afterwards at longer intervals as safety seemed assured. The bleeding never returned after the opium was begun. Saline aperients were carefully given, and subsequently bromide of ammonium was prescribed to allay nervous irritability, with digitalis to restore a better balance between the arterial and venous systems. The patient is going on well.

Ventnor, Isle of Wight.

CARCINOMA OF BREAST: RECURRENCE IN THE OTHER BREAST THREE YEARS LATER.

BY W. S. CRAWFORD, B.A. CANTAB., F.R.C.S. EDIN.,
ASSISTANT-SURGEON, LIVERPOOL CANCER AND SKIN HOSPITAL.

A SINGLE WOMAN came under my care in May, 1890, with a large tumour in the right breast; it was adherent to the skin, the nipple was retracted, the axillary glands were hard and enlarged, and there was well-marked scirrhus of the breast. This was removed and the axilla cleared; the sections were found to be hard spheroidal-celled carcinoma. The wound rapidly healed, the patient went home in three weeks, and remained apparently healthy until March, 1893, when she again presented herself, seemingly in perfect health, but complaining of a "lump" in her left breast, which on examination appeared as a large swelling occupying the centre of the breast with the nipple on the summit. There was no retraction of skin; the tumour involved the breast tissue, but was soft and doughy in consistence; the axillary glands to the feel were not enlarged, the appearances suggesting sarcoma rather than carcinoma; the patient gave a history of only a fortnight's duration. The tumour was removed and the axilla opened in view of the possibility that it might be a carcinoma, but no glands were found enlarged. The wound rapidly healed and at present (May 24th) there appears no sign of recurrence. On section the tumour was soft and creamy and turned out on examination to be an exceedingly soft, well-marked, spheroidal-celled carcinoma. This and the previous tumour were microscopically examined by my friend Mr. Thelwall Thomas. There was no evidence of the dissemination of the growth; the lungs appeared, as far as one could tell by external examination, perfectly free. She had no cough.

This case is worthy of recording on account of the reappearance of carcinoma of a very different nature in the other breast and probably not a secondary growth to the original tumour. The patient very nearly completed the three years' immunity period commonly regarded as cure.

Mount Pleasant, Liverpool.

LITERARY INTELLIGENCE.—Dr. Peter Ilinski, the founder of the *Russkaya Meditsina*, has retired from the editorship of that paper. The journal will be carried on by Dr. N. P. Ivanovski, Professor of Military Medicine in the St. Petersburg Medico-Chirurgical Academy.—Dr. Dobrzicki has resigned the editorship of the Polish journal *Medycyna*, and Dr. Ludwig Guranowski of Warsaw has accepted it.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

A CASE OF ANGIOMA LIPOMATODES OF THE ARM.

(Under the care of Mr. HULKE.)

EXCLUDING from consideration multiple lipomas widely scattered in the form of small knots through large areas of the subcutaneous fatty tissue, since these often contain so large a quantity of connective fibrous substance that they might without inaccuracy be called "fibro-lipomas"; disregarding also the affection named "lipoma nasi," which, as it consists essentially of an overgrowth of the tegumental sebaceous glands, has not any affinity with true lipomas—new growths composed dominantly or wholly of fatty tissue differing little or not at all from the normal fatty tissue of the body—it is a matter of common experience that these last evince little tendency to undergo pathological changes; they are little liable to inflammation, and when attacked by it the seat of the process is commonly limited to their capsule, causing adhesions between this and the contiguous parts, particularly to the integument, when such lipomas occur in situations where they are subject to pressure by parts of the patient's dress. Hardening processes, such as calcification and ossification, are nearly restricted to the interlobar connective dissepiments. Similarly, in connexion with angiomas, if we except those commonly called "port-wine stains," which have a stronger claim to be regarded as ectases, and if we take the bright, deep red, slightly raised tegumental form so frequently seen in infants as a common type, these, consisting almost entirely of vascular tissues with a minimum admixture of connective substances, appear little liable to spontaneous pathological change, unless simple atrophy be recognised as such. But angiomas into the composition of which venous tissues largely enter, such as may often be noticed in those somewhat more deeply situated than are the strictly tegumental nævi, have not a similar immunity, for these angiomas appear very liable to processes which entail thrombosis and the usual sequels—the formation of solid fibrous knots and of phlebolites &c. This is well illustrated in instances of angiomas more deeply placed than those just mentioned—viz., those which lie beneath the deep fascia between and beneath muscles. Such are often highly venous, and they are particularly liable to the morbid changes to which reference has just been made. The museum of the Middlesex Hospital contains an example of the extreme form of this variety of angioma. It was removed after death from beneath the trapezius and sterno-cleido-mastoid muscles. The preparation shows a bunch of venous blood spaces, some one centimetre and even more in cross section, which communicated by short wide channels with the internal jugular vein. The late Sir W. Fergusson, in whose private practice the case occurred, had regarded the tumour as inoperable. The patient, an infant a few months old, died of another disorder. Of not very infrequent occurrence are tumours in which fatty and vascular tissues are mingled—in certain instances one, in other instances the other tissue, commonly the venous, preponderating in amount. These are often deeply seated, and they are frequently the seat of those morbid processes first mentioned in connexion with venous angiomata. This instance is a fair example of the composite form. The diagnosis was based on the lobular figure, the fluxionary swelling, and on the hard knots scattered through the soft mass.

An anæmic brunette, aged twenty-two years, a kitchen-maid, was admitted into the Bird Ward on May 25th, 1892, with a swelling in her right forearm which she said swelled so often and became so painful, particularly after work, that it quite prevented her from continuing her employment. The swelling occupied the ulnar side of the flexor aspect of the

forearm from the distance of one finger's breadth below the internal humeral condyle to within four finger-breadths of the bend of the wrist. The skin was freely movable over it, but the swelling itself appeared to be intimately connected with the deeper strictures. It became slightly more prominent when the flexors contracted; it was firmer when the hand was pronated and softer in supination. Its consistence suggested that the swelling was a soft solid, in the general mass of which were embedded small, hard, bead-like knots. Peripherally an unevenness of margin was noticed, suggestive of lobulation. At the date of the patient's reception into the hospital—after a few days' rest—the swelling was neither painful nor tender. She had first noticed the swelling, she said, eleven years before, and its growth had been very slow. The diagnosis formed from these data was a deep lipoma, probably nævoid, and since its presence seriously interfered with her earning her living its removal was advised and this was done on June 1st. The dissection was rendered troublesome by the free venous hæmorrhage, requiring many ligatures for its arrest. The mass was under the deep fascia and partly between the deep and superficial layer of muscles; it was also in part incorporated with the fleshy part of the flexor carpi ulnaris. It was found to be composed of fatty tissue, with a larger admixture of nævoid tissue in which the venous element predominated. Some of the venous channels were plugged with clot exhibiting every stage of transformation, from that of recent formation, scarcely changed, to that of old date in the form of hard fibrous knots and of vein-stones. Immediate union was obtained throughout nearly the whole extent of the large, irregular wound, and this was completely healed on June 13th, when the patient left the hospital.

ROYAL VICTORIA HOSPITAL, NETLEY.

A CASE OF SCIRRHOUS CANCER OF THE CHEST.

(Communicated from the Medical Division.)

PRIMARY tumours of the mediastina are not very rare, but it is unusual to meet with scirrhus at the early age of this patient. The disease ran a somewhat prolonged course and throughout one of the usual indications of intra-thoracic growth was absent—that of enlargement of the veins of the chest-wall or neck from pressure on the main trunks within the chest. The symptoms in the early stages being as usual very vague, the patient presented little to indicate the character of the disease from which he was suffering until the glandular enlargement (which is well shown in the engraving at a late stage) appeared. The character of the fluid removed by aspiration from the pleura does not appear to have differed in appearance from that usually met with in pleuritic effusions.

The patient was twenty-one years of age, having served four years, nearly three of which were spent at Mediterranean stations. The family history was unimportant. His former trade was that of a flax-spinner; his habits were intemperate. In June, 1890, he contracted syphilis, for which disease he was three times admitted into hospital between June and December of that year. On Feb. 24th, 1892, he went to hospital suffering from bronchial catarrh; he remained eleven days under treatment. In March of the same year he was again admitted, after having to fall out on parade in consequence of a stabbing pain in the left side accompanied by shortness of breath. A collection of fluid was discovered in the left pleura on admission. He was treated with tonics. Aspiration was performed seven times between the date of his admission and the month of June, clear fluid being removed on each occasion. On July 2nd, 1892, he embarked for England and on the 11th of that month—the day of his arrival at Woolwich—he was admitted into hospital for pleurisy; he remained under treatment 101 days. During this time he was twice aspirated, fluid similar to that withdrawn at Malta being removed from the left side of the chest; he was placed on cod-liver oil, but as it caused vomiting it was discontinued after a three weeks' trial. He was admitted to the Royal Victoria Hospital, Netley, on Oct. 19th, 1892. The patient stated that he had suffered from slight pain of a stabbing character in the lower part of the chest on the right side in March, 1892; he had had very little pain in the left side of the chest during his illnesses; he had suffered much from shortness of breath. He said his chest was bulged in March, 1892, about which time he noticed that the glands in the left axilla were becoming enlarged. After the aspirations performed at Woolwich it was found that the left chest did not return to its normal dimensions, but remained considerably bulged. Whilst in hospital at Woolwich the glands in the right axilla and along the posterior margin of the sterno-mastoid muscle became enlarged; when he left the Woolwich Hospital the glands were about the size of broad beans. The only other symptoms noted at that time were pallor and a slight but continuous elevation of temperature.

On Dec. 13th the following was the condition: His body appeared well nourished, contrasting with the rather emaciated condition of his limbs; his colour was described as earthy yellow, the skin being dark round the eyes. The chest wall was œdematous. It was noted that his face became flushed during sleep and that his favourite position was to lie on his left side, slightly propped up. He was permitted to sit up every afternoon for about three hours; when up he seemed weak and moved about with difficulty. His temperature had, since his admission, varied between 98° and 102°, more often between normal and 100·5°, with an evening rise and morning fall. On looking at the chest an enormous bulging was seen on the left side, especially over the upper ribs, the left nipple being prominent. The intercostal spaces were bulged, but did not give the impression that the tissues were pressed forward by fluid. The superficial veins were prominent on the right side. As regards the respiratory system, the right side of the chest from the spine to the mid-sternal line measured eighteen inches and a half at the level of the nipple, and the left side of the chest at the same elevation measured

nineteen inches and a half. On respiration there was very little movement on the left side of the chest. The front of the left chest was absolutely dull to percussion and resistant. The dulness extended from one inch to the inner side of the right nipple line to the mid-axillary line on the left side. On the right side of the chest the dulness did not extend above the level of the nipple, but on the left the whole front from the apex downwards was dull and resistant. The breath sounds were absent over the area of dulness and the heart sounds were so muffled as to be almost inaudible, but they appeared normal. In the left pleural sac a small amount of fluid was diagnosed, indicated by relative dulness and deficiency of breath sounds and vibration. In the other parts of the chest the lung sounds appeared normal save for a few rhonchi. The respirations were 28 a minute. The glands in the right axilla were enormously enlarged, forming a mass about the size of a clenched fist; continuous with the mass was a chain of enlarged glands, each about the size of a hazel-nut, along the posterior margin of the sterno-mastoid muscle. In the left axilla the glands were also enlarged, but not to the same extent as on the right side. The gland above the elbow-joint on each side was likewise slightly enlarged. No enlargement of glands was noted on the left side of the neck or in the groin. The glands were not adherent to the skin. The digestive system was normal. The liver and spleen were apparently normal. The pulse was soft, thready and easily compressible. The red blood corpuscles were normal; leucocytes more than doubled, number-

ing 22,680 per cubic millimetre. The urine was acid, with a specific gravity of 1010 and no albumen. The patient slept well and quietly. On Jan. 2nd, 1893, he took cold and had an attack of bronchial catarrh. It was noted at that time that some glands near the angle of the jaw on the right side were large and tender. On the 4th he was placed on ten-drop doses of Donovan's solution thrice daily immediately after food. He had previously for some time been taking arsenical liquor. On the 14th a marked change for the better was noted; the breathing had become freer, the masses of glands in both axillæ were noted to be decreasing in size; there was, however, an increase recorded in the size of the glands at the angle of the jaw on the right side. The dulness in the chest was noted to be much the same as on Dec 13th, 1892. The general health and appetite of the patient remained good. No further symptoms of importance were noted up to the time of his death, which took place on Feb. 25th. If anything, his condition slightly improved, and he always expressed himself as "feeling better"; throughout the course of the disease he suffered very little pain. On the morning of that day he was seized with breathlessness, the heart gradually failed, and he died quietly in the after part of the day.

Necropsy, seventy-seven hours after death.—The body was emaciated, the thoracic region being very prominent. In the right axillary space and some distance below there was a mass of swollen glands as large as a cricket ball. The glands in the opposite axilla were also enlarged. There was a mass of swollen glands on the right side of the neck immediately below the right ear and right side of the jaw. The feet and legs were œdematous. On opening the body the following conditions were found: The tissues in the anterior thoracic region were much thickened and indurated, due to a wide infiltration with cancer. The axillæ were infiltrated with masses of scirrhous cancer. The whole region below the sternum was filled with a cancerous mass extending downwards eight inches from the sternal notch. There were eighty ounces of clear straw-coloured fluid in the right pleura, about six ounces of fluid in the left pleura and twelve ounces of clear straw-coloured fluid in the pericardial cavity. The heart and pericardium were displaced downwards and to the left. The pericardium anteriorly was much infiltrated with cancer, the sac in some places being as much as two inches in thickness. The heart weighed 8 oz., the muscular substance being comparatively healthy. A huge mass of cancer occupied the mediastinal region, infiltrating the walls of the pericardium and roots of both lungs. The lungs were collapsed, both being œdematous, especially the left. The purulent fluid in the bronchi and in the lining membrane of the larynx and trachea was much reddened. The left lung weighed 1 lb., the right lung 13 oz. The cancerous mass from the mediastinal region weighed 4 lb. 6 oz.; the mass was exceedingly tough, cutting like a piece of india-rubber; it was yellowish-white in colour, with here and there some hæmorrhage into its substance. The liver was congested and fatty. The kidneys were intensely congested. The engraving is from a photograph taken shortly before death.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Inguinal Colotomy for Membranous Colitis.—Fatal Asphyxia following Self-administration of Nitrous Oxide Gas.—Chronic Albuminuria.—Annual General Meeting.—President's Valedictory Address.

THE last ordinary meeting of this Society for the present session took on May 26th, the President, Sir DYCE DUCKWORTH, being in the chair.

Mr. MAYO ROBSON read a paper on a case of Membranous Colitis treated by inguinal colotomy with surgical treatment of the ulcerated surfaces and subsequent closure of the artificial anus. There was severe ulceration of the lower part of the colon and upper end of the rectum which had failed to yield to various forms of medical treatment and to surgical treatment applied through the anus, but which was apparently cured by the performance of inguinal colotomy and local treatment of the ulcerated surfaces by regular irrigation with boracic solution from the anus to the artificial opening and *vice versâ*. After giving full notes of the case Mr. Robson remarked that it would be feasible and might be advisable to treat many other chronic diseases of the bowel accompanied by ulceration in a similar manner, after the failure of medical treatment. He further remarked that, although in this case inguinal colotomy, an operation attended with practically no risk, enabled him to reach the disease, if the affection in another case extended higher, he would not hesitate to open the bowel in any other part of its course in order to adopt local treatment.—Dr. HALE WHITE desired that a clear distinction should be drawn between membranous and ulcerative colitis. Ulcerative colitis was a disease occurring principally in men and affecting them in mid-life. It was a remarkably fatal disease. He had known of a case which had lasted several months, but many died within two weeks. The bowel was found extensively ulcerated and the ulceration was markedly irregular and had been compared to a child's puzzle-map. The muscular coat was much hypertrophied. It was frequently associated with chronic Bright's disease. Membranous colitis, on the other hand, was a very chronic affection, lasting many months, large membranous casts of the bowel being thrown off.—Mr. H. R. ROBINSON said that in 1891 he operated on a man aged sixty-six who was the subject of ulcerative colitis. The first symptom was copious hæmorrhage, and this continued from time to time during the next seven weeks. He performed inguinal colotomy and in the sigmoid loop which he drew up he found a large ulcer, the floor of which was formed of peritoneum only. He fastened the loop outside the abdominal wall and the ulcer shortly afterwards gave way. The patient, who was very weak, sank and died on the fourth day. At the post-mortem examination numerous ulcers were found extending from the middle of the transverse colon to the sigmoid flexure; they were for the most part sharply punched out and one of the deepest had been the source of the hæmorrhage.—The PRESIDENT remarked on the essentially chronic nature of these cases and held that they should be submitted to patient medical treatment before being handed over to the surgeon.—Mr. ROBSON briefly replied.

Dr. GAGE-BROWN then related a case of fatal Asphyxia following the administration of nitrous oxide gas. At 5.20 on the afternoon of March 14th he was summoned to the house of a surgeon-dentist, aged forty, and found him lying full length on the floor of his surgery. Life was extinct. His face was livid, and his ears, lips, tongue and finger-nails were blue. The servant stated that shortly after 5 o'clock a friend called to see the deceased and on opening the door of his room she found him seated on a chair opposite his gas apparatus, with his head fallen forward on to his knees and the face-piece of the gas apparatus covering his face. He was immediately placed on the floor. The gas apparatus consisted of an ordinary upright stand, containing two upright cylinders. The key was on the screw of the left cylinder and was turned on, the screw being quite loose. The cylinder was empty. The right cylinder was full. Both had been procured on Feb. 25th. A new full cylinder brought home by the assistant early on the afternoon of March 14th was lying close to the gas apparatus, but had not been touched. At least seven "gas cases" had been attended to since Feb. 25th. The dentist, who was seen by several persons on the fatal day, was bright and cheerful and did not appear to have had any special anxieties. The post-mortem examination was made on March 17th. The venous system was engorged with dark fluid blood; the arterial system was empty. No bloodclots were found. The right heart was engorged, the left empty. The left ventricular walls were hypertrophied and firm; there was no dilatation. All the valves, vessels and other organs were healthy. There was no obstruction of any kind in the pharynx, larynx, trachea or bronchi, and there were no marks of violence. There was nothing to point to the gas having been taken with a view to its lethal effects, and all the evidences of the case showed that but a small quantity of gas was inhaled. He therefore came to the conclusion that the face-piece must have remained fitting so closely to the face that air could not enter the lungs, and that though there was a certain amount of gas in the system the fatal result was actually brought about by mechanical asphyxia.—Dr. BOWLES, having elicited from Dr. Gage-Brown that the Silvester method of artificial respiration had been adopted in this case, remarked on the inefficiency of that method when the patient remained in the dorsal decubitus. In the many deaths recorded from chloroform inhalation the variety of artificial respiration employed in the attempts at

restoration was not usually mentioned. If the patient were placed on his back the tongue lolled back into the pharynx, and attempts to pull it forwards would not raise the base, as the frænum effectually prevented this. For this reason he had always advocated the Marshall-Hall method of artificial respiration, which obviated the necessity of placing the patient on his back.—Dr. GAGE-BROWN, in reply to Mr. Eastes, said that the pulmonary artery was engorged with dark fluid blood. At least a quarter of an hour elapsed before he saw the patient.

Dr. FRANCIS HAWKINS gave details of two cases of Chronic Albuminuria of long standing. The first was that of a gentleman aged forty-nine, who came to him in January, 1893, with the following history: He had always been in good health before and since, but twenty-five years ago on wishing to effect an insurance on his life, his application was refused on the ground that his urine contained albumen. Some years later he placed himself under the care of Sir William Gull, and was put on strict diet, but on every occasion his urine was found to contain albumen. He was a spare, wiry man with a well developed muscular system and no abnormality was detected beyond some displacement of the apex of the heart outwards. The pulse was regular and did not exhibit any marked degree of intra-arterial tension. His urine when seen in January last was clear and of a dark amber colour, specific gravity 1025. This gave on standing a third of albumen. It also contained uric acid crystals. He had obtained the records of the various examinations made of this patient's urine and they exhibited a remarkable constancy in respect of the amount of albumen present. He was in the habit of taking much out-door exercise and felt strong and well, not easily becoming indisposed. Vigorous exercise did not in the least distress him. An even more interesting case was one for which he was indebted to the courtesy of Mr. Russell Dodd. In this case the albuminuria had lasted for forty-three years. The patient was a medical man in large practice which he relinquished in 1841 after consulting the famous Dr. Bright who gave it as his opinion that the patient would probably not live two years. The urine was said at all times to have contained at least one-third of albumen and this was established on authenticated data since 1874. The specific gravity was usually 1012 and nocturnal micturition had been the rule certainly for eighteen years. In 1887 sugar was detected in the urine in addition to the albumen; it persisted for eight months and then disappeared. He suffered off and on from diarrhœa for some years. The pulse was frequently intermittent and there was some cardiac hypertrophy, but the sounds, beyond being accentuated at the base, were said to be normal. The patient died of cerebral hæmorrhage in 1892, being then eighty-eight years of age, forty-three years after having been told by Dr. Bright that he was suffering from renal disease and that early death was inevitable. He was able to take carriage exercise right up to the day before his death. These two cases seemed to indicate that life might be of ordinary duration even in presence of chronic albuminuria, and also that patients might enjoy at any rate fair health. This suggested the question whether there were any means of distinguishing between cases of albuminuria which were destined to an early death and those in which it would not prove incompatible with a prolonged life. He had himself never met with a case of persistent albuminuria with the history of a previous attack of acute nephritis from cold, nor was any such case to be met with in the literature on the subject. He inferred from these cases that the amount of albumen in the urine did not afford any indication of the gravity of the disease any more than the presence of hyaline casts. Even cerebral hæmorrhage might occur without causing death. It seemed to him that they must go further than mere symptoms before they could find a basis for prognosis. Of 106 fatal cases of chronic (interstitial) nephritis twenty died from cerebral hæmorrhage, and it was worthy of note that in all these cases both kidneys were diseased, œdema of the extremities not being recorded in a single instance and œdema of the lungs in only two, thus showing that all was going on well until the fatal rupture. The remaining cases died from œdema principally involving the lungs and pleuræ. Œdema was therefore the most common cause of death and this occurred in consequence of the stretching of the auriculo-ventricular orifice allowing of regurgitation. One would expect to find a mitral murmur; but, as a matter of fact, this was by no means always present. In cases dying from cerebral hæmorrhage it was suggested that the fibrous tissue around the auriculo-ventricular orifice was, as well as the arteries, sclerosed, and thus prevented dilatation and œdema of the lungs. This might in some instances be suspected from the alteration in quality of the sounds at the apex, which was regarded as an important element in prognosis.

The business of the annual general meeting was then proceeded with. The PRESIDENT first referred in very feeling terms to the sudden death of Dr. Hadden, the senior secretary, owing to which sad event the Society met under the shadow of a very dark cloud. Having mentioned a few details of the last illness of the late physician, which appeared to have developed as the result of a post-mortem wound, he referred to the excellence of the work done by Dr. Hadden, whose labours as a scientific investigator had left his mark for all time, and who had proved himself active, able and amiable as an officer of the Society. On the motion of Dr. ORD, seconded by Mr. BENNETT and supported by Mr. PEARCE GOULD, it was resolved to convey to the relatives of Dr. Hadden, through the President, the condolences of the Society on the irreparable loss they had sustained. The annual report of the Council was then read and disclosed a satisfactory advance of the Society in every respect.

The following were elected as office-bearers for the ensuing year:—President: Mr. John Whitaker Hulke. Vice-Presidents: Sir George Buchanan, M.D., Drs. Charlton Bastian, Alfred B. Duffin, J. G. Glover and Messrs. John Langton and Robert William Parker. Treasurer: Dr. William Miller Ord. Council: Drs. Thomas Barlow, W. H. Day, Henry Handford, Donald William Charles Hood, T. Ridge Jones, H. Montague Murray, A. T. Myers, William Pasteur, Sidney Philips, Frederick Roberts, Dawson Williams and Messrs. William Anderson, William Henry Bennett, Anthony A. Bowlby, George Buckston Browne, W. Arbuthnot Lane, G. H. Makins, Bernard Pitts, A. W. Mayo Robson and Frederick Treves. Honorary Secretary: Mr. A. Pearce Gould.

Sir DYCE DUCKWORTH then delivered a short valedictory address, reviewing very briefly the term during which he had been in office. In his opening address he had denounced the modern tendency to pursue novelties in treatment too assiduously and to let go the hold of well-approved methods, and in justification of his attitude he referred to the history of the Koch treatment for tuberculosis. Having alluded to the continued prevalence of influenza and to our escape so far from the advancing wave of Asiatic cholera he once more congratulated the Society on the issue of their committee's report on the incubation of certain infectious diseases. He noted with satisfaction that during his tenure of office a means of combating myxœdema had been introduced which, so far as experience went, encouraged us to hope not only that the symptoms might be alleviated, but that the progress of the disease might be effectually stayed. In conclusion, he regretted that the younger members were too chary of taking part in the discussions, and his last wish was that the Society would in the future, as it had done in the past, carry out the high ideal conceived for it a quarter of a century ago by its founders.

HARVEIAN SOCIETY.

Obscure Head Injuries.—Cure of Hernia.

A MEETING of this Society was held on Thursday, May 4th, Dr. ROBERT MAGUIRE, Vice-President, in the chair.

Dr. CHARLES GROSS read a paper on some Obscure Head Injuries.—Mr. SILCOCK read a paper on the Radical Cure of Hernia. Drawing attention to the frequency of the adoption of this procedure, he remarked that the readiness of people to submit to this treatment lay in its evident success. After it men had been and were admitted into the army and taken as first-class lives by the best assurance offices. He believed that relapse either in his own or the practice of other surgeons was comparatively rare. Of twenty cases of inguinal hernia, varying in age from one year to twenty-five or thirty years, submitted to the operation during the years 1889 to 1891, only one patient as yet, so far as he knew, had had a recurrence, and he, having now been operated on a second time, was well. The mortality of the operation was very small. The essential point common to all operations for the radical cure of hernia was the complete obliteration of the sac. He himself followed the practice of Lucas-Championnière. The patient was kept in bed for three weeks after the operation; no truss or supporting bandage was worn subsequently.—Mr. TREVES said that there were more ways than one of doing the operation satisfactorily. He had only seen one relapse,

and that was in a case done years ago by a now obsolete method. Union is not effected by bringing together the margins of the ring. Obliteration of the sac is the essential feature of successful operation.—Mr. LOCKWOOD said that radical cure was not to be lightly undertaken. He had done over forty operations and had had one death under ether, otherwise no case had caused the slightest anxiety. The absence of suppuration was attributable to the position of the wound far from the scrotum and to care in preparing the silk. The kind of operation depended upon the severity of the case. When the aponeurosis ought to be divided and when not still remained to be decided. He did it only in the worst cases. The ultimate results of radical cure were very good in selected cases and patients safely performed the hardest work.—Mr. BUTLIN said that the death statistics to which Mr. Lockwood had alluded referred not only to the operations of late years, but to operations for the radical cure of hernia performed years ago. The later operations had produced a much smaller death-rate, and he believed that the death-rate of operations for the radical cure of hernia in the London hospitals in future would not be more than 1 or 2 per cent. for all kinds of operations. Of course, cases of strangulated hernia were not taken into account. He was glad to see that all who had spoken regarded operations for the radical cure of hernia as proper and justifiable operations, and the only question which had been raised was which operation should be performed. After seeing Mr. Silcock's cases he had come to the conclusion that a less severe proceeding than was implied in Bassini's operation would suffice for many of the lighter cases of inguinal hernia; but he believed that no less operation than a complete re-formation of the inguinal canal would suffice for the older and graver cases of hernia.—Mr. WATSON CHEYNE congratulated Mr. Silcock on the cases he had shown, but did not think that operations which did not alter the relations of the muscular planes could always be relied on. That had certainly been his own experience, and where a really radical cure was wanted he thought it best to perform the modifications of Macewen's or Bassini's operation, which he described in THE LANCET last year. He could not agree in referring the suppuration in all or even the majority of the cases to the ligatures or stitches used. In most instances where suppuration occurred the cause was introduced by the surgeon's fingers and not by the ligatures. He did not find it necessary to boil the silk. Whilst he did not believe that a perfect result could be relied on by stitching the pillars of the external ring, he could not agree with Mr. Treves that no adhesion occurred as the result of such a procedure. As to recurrences, he had seen several where the muscular planes were not dealt with, one or two after the modified Macewen's operation, but none after the modified Bassini's operation.

Reviews and Notices of Books.

Some Lectures by the late Sir George E. Paget, K.C.B., M.D., F.R.S., Regius Professor of Physic in the University of Cambridge. Edited from MSS. With a Memoir by CHARLES E. PAGET. Cambridge: Macmillan and Bowes. 1893.

THE medical profession will be grateful to Mr. C. E. Paget for having issued these writings of his father, whose long and blameless career and fine character have left such an excellent example to those who follow him. Sir George Paget was indeed the ideal physician, full of kindliness and gentleness, highly cultured, wise and sober in judgment, combining the shrewd practical knowledge of the experienced physician with the noble qualities of a true English gentleman; and there is no wonder that his counsel was sought and valued. His public duties and his inherent modesty prevented or deterred him from adding much to medical literature during his life time; but from amongst the papers which he has left behind him his son has selected the few here published, and has prefixed to them a memoir of his father which adds materially to the value and interest of the book. There are only three topics discussed in the lectures that have thus fortunately been rescued from oblivion, and they are all of much interest and importance. The first is that of the Etiology of Typhoid Fever, which is dealt with in a manner that is masterly as well as thoughtful. It opens with a discussion of the arguments which have from time to time been urged in support of the spontaneous or *de novo* origin of this disease. The strength of the opposite contention is admitted; but the conclusion arrived at may be best described as a compromise between the two opinions. That the contagium is of the nature of a living organism rather than a chemical compound is held to be proved, and it is shown that an explanation for an apparent *de novo* origin may be found in the entrance to a district of an unrecognised case, or by assuming the dormancy of germs for longer or shorter periods, or even by accepting the possibility of their aerial transmission. At the same time, neither of these explanations suffices to account for every outbreak, and only in part for the greater prevalence of the disease in the autumnal season. Hence Sir George Paget has expressed the opinion that there is no logical escape from the conclusion—with the postulate of the bacillary nature of the virus—that the organisms of typhoid fever may be evolved from non-pathogenic forms. He accepted, in fact, Büchner's well-known hypothesis and considered that to have some justification, especially when the converse fact has been proved up to a certain point by the researches on "attenuation." His lectures do not dogmatise, however, but suggested this as explaining some of the greatest difficulties in the etiology of typhoid fever and hinted at a possible connexion between summer diarrhœa and the autumnal prevalence of that disease. We have seldom met with a statement of this crucial question more temperately, concisely and clearly made.

The next subject that is considered is that of Alcohol as a Cause of Disease, the lecture being replete with illustrations drawn from the writer's long and varied experience. Again we meet with the same calm and dispassionate study of the question that forms the characteristic of every page of the work, in the gradual unfolding of the argument in the discussion of the problem of the use of alcohol. It is admitted that this problem is not yet entirely solved, but it is also shown that there is no physiological necessity for it as an article of diet in health. There is, it is stated, "no sufficient evidence of alcoholic drinks being ordinary necessaries of life." Their prescription in certain diseases where it is of obvious importance to check tissue-waste has still to be regulated and there is no doubt that we are in want of guidance as to the amount and kind that are best suited for particular affections. Whether alcoholic drinks are harmful when taken in moderation is a different matter and one upon which there is but little evidence; but the injurious effects of excessive indulgence are well known. They furnish a large quota of disease and premature death. Examples are given of cases illustrative of derangement of one or other of the functions from habitual excess in alcohol, and of particular interest are the records given of cases seen by Sir G. Paget more than thirty years ago which were undoubted examples of multiple neuritis. The two main causes of alcoholic indulgence are considered to be (1) inherited tendency and (2) the opportunity for drinking; to which may perhaps be added the extremes of feverish strain and worry on the one hand, and of idleness and luxury on the other, which characterise modern life.

The third lecture deals with Mental Causes of Bodily Disease—a fascinating topic treated in an interesting way—suggestive rather than exhaustive, but supplying many an instance from personal and from recorded experience which may well be noted by the psychologist. Mr. Paget says that Sir George Paget had intended to have added remarks on hypnotism, faith healing, music &c., as remedial measures; and it would indeed have been valuable to have had the benefit of his judgment upon their efficacy. All will admit that Mr. C. E. Paget has made a wise selection of topics of much general interest, although the pleasure

afforded by the perusal of these sagacious and thoughtful essays is sure to be tempered with the regret that their number is so few. It is pleasant to turn from the teeming records of new "discoveries" and the intricate details of modern researches to these lucid expositions of problems that daily confront the medical practitioner, who, bewildered by the abundance and complexity of the former, is certain to derive rest and refreshment from the latter. Above all, the lectures will be valued as the product of one whose influence is to be seen in the careers of those who were so fortunate as to have had his guidance as their teacher.

Public Health Laboratory Work. By HENRY R. KENWOOD, M.B., D.PH., F.C.S., Instructor in the Hygiene Laboratory, University College, and Assistant to Professor Corfield in the Public Health Department, University College; including Methods employed in Bacteriological Research, by RUBERT BOYCE, M.B., Assistant Professor of Pathology, University College. London: H. K. Lewis. 1893.

THE matter contained in this volume is broadly that which is imparted to students preparing for sanitary science examinations in the Public Health Laboratory of University College, London. Although the author protests that he has found it a matter of no small difficulty to decide what to omit and what to introduce, owing to the extensive range of his subject and the many related methods in analysis which have lately been introduced, we must congratulate him upon the efficient manner in which he has acquitted himself of the task. It must be reckoned amongst the great merits of this book that it is completely free from anything like padding, the author having allowed himself in no single instance to digress from the matter in hand. Though addressing himself to advanced students Dr. Kenwood very rightly introduces his readers to the subject by a careful description of chemical apparatus, weights and measures, atomic weights &c., and then proceeds to give a full explanation of the methods of water analysis. After detailing the practical processes to be adopted for the detection and qualitative estimation of each of the important constituents or impurities of water, an example is worked out in full, showing the student how to return his results for the purposes of a report of water analysis. This section is completed by a table of analyses of various typical samples of water, and the numerous pitfalls, into which the student may fall, in drawing conclusions from his results concerning the purity or otherwise of the water with which he has been dealing, are admirably explained. For the estimation of organic matter Wanklyn's process is recommended in preference to Frankland's, mainly on account of the greater cost and skill required and the tediousness of the latter method, but also because inferences are drawn in Frankland's process from the ratio which "organic nitrogen" bears to "organic carbon"—a proportion between the two which Dr. Dupré has pointed out is in sea water even less satisfactory than that found in pure sewage. For the estimation of the carbonic acid in air the classical method of Pettenkofer is recommended to the exclusion of all others, for the very good reason that it yields results as accurate as any others that have been advocated and also because it is the process which is always required at Public Health examinations. In describing the estimation of alum in bread the author states that alum, owing to improved processes in the manufacture of bread, is very little employed, and it is comparatively rare that its presence is detected in amounts which denote an excess over that which may be normally present; also that it is pretty generally agreed amongst physicians that no addition of alum should be countenanced. We fear, however, from a case that has recently been before the courts, that neither of these points can as yet be considered definitely settled and that we are yet far from the settlement of the difficulty. Throughout the book Dr. Kenwood maintains the same clear and lucid style in his description of the various analytic processes, and we feel sure that the student who selects this work as his guide in laboratory work will have committed himself to the teachings of a safe and reliable instructor. The volume is enriched throughout with a wealth of illustration, which adds greatly to the value of the book. Dr. Boyce contributes a few chapters on the Methods of Bacteriological Research, with special reference to the examination of air, water and food; and these would appear to comprise all that is necessary for the candidate for a Public Health diploma to acquire in this department.

St. Bartholomew's Hospital Reports. Edited by W. S. CHURCH, M.D., and W. J. WALSHAM, F.R.C.S. Vol. XXVIII. London: Smith, Elder and Co. 1892.

THE papers in this volume are, as they should be, almost entirely based upon experiences gained in the wards of the hospital which they represent. The communications on medical subjects outnumber those on surgical cases and comprise a great variety of topics. In thoracic disease there is a brief note by Dr. Gee on Chronic Solidification of the Base of the Lung, which he divides into the four categories of (1) carnification secondary to pleural effusion, (2) cirrhosis secondary to chronic pneumonia, (3) tubercle of base of lung, and (4) a category of cases of cirrhosis of the lung not included in the foregoing. Dr. Gee makes the important statements that he has never been able to satisfy himself "that there is such a disease as pulmonary syphilis," and that there is not "any very conclusive evidence that inhaled dust can set up cirrhosis apart from tubercle." Many doubtless would like to read a full exposition of the reasons which have weighed with so distinguished an observer in arriving at these conclusions. Dr. Vincent Harris analyses a large number of cases of Intrathoracic Growths, and Dr. Samuel West records his observations upon the Pulse Respiration Ratio in Croupous Pneumonia. An interesting bacteriological study in Acute Pneumonia is contributed by Dr. Cautley, his observations leading him to the conclusion that if microbic in origin this disease can be caused by a great variety of different organisms. Dr. James Calvert controverts the generally accepted view that in cases of pleural effusion there is no positive intra-pleural pressure until the lung is quite collapsed and relates experiments in support of his contention. Amongst other medical articles may be noted a paper by Dr. Ormerod on Landry's Paralysis, describing four cases, in each of which no morbid changes were detected after death in the nervous system. Dr. Batten gives detailed notes of three cases of Progressive Muscular Atrophy with loss of sensation to heat and cold; two of these cases were fatal and were proved to belong to the class of "syringomyelia." Cases of General Spastic Rigidity are recorded by Sir Dyce Duckworth and Dr. Tooth, both in young subjects and both improving under treatment. The precise pathology of these cases is obscure, the probability being that the condition was due to subacute meningitis with implication of the cortex. Mr. A. Maude advocates the use of Leiter's Tubes to the præcordium in Graves' Disease, and Dr. Haig writes on Raynaud's Disease, with especial reference to "uric acidæmia" and the contraction of peripheral vessels. There are other interesting papers by Drs. Norman Moore, Ainslie Hollis, A. J. Hall and J. F. Bullar. Of the surgical contributions we may note Mr. Marsh's paper on the Differential Diagnosis of New Growths and Inflammatory Enlargements of Bone, a report of Nine Cases of Intestinal Obstruction by Mr. Tunnicliffe, and one of twenty-eight cases of Intussusception by Mr. McAdam Eccles, an article on Large Nasopharyngeal Polypi by Mr. Walsham, and notes on the Incision in Abdominal Section by Mr. Harrison Cripps, on Tracheotomy by Dr. Holden, on Fissures of the Rectum and Anus by

Mr. Goodsall and on the Surgical Treatment of Hydatids by Mr. Wallis. Dr. Lauder Brunton and Mr. Bokenham contribute a brief paper on the Comparative Action of Bertoni's Ether (Tertiary Amyl Nitrite), Amyl Nitrite and Iso-butyl Nitrite, which tends to show that there is no preponderating advantage for the first-named high-priced article. There are reports of the Orthopædic Department by Mr. Walsham and of the Electrical Department by Dr. Lewis Jones, whilst a melancholy interest attaches to the fragment by the late Dr. Tylden on Typhoid Fever, the subject upon which he was engaged when he himself contracted this disease which proved fatal. A brief memoir of the writer is appended to the article. The volume also contains the record of the work done at the Abernethian Society, a list of the additions to the museum, and the analysis of cases treated in the hospital during 1891 by the medical registrar, Dr. Ormerod, and the surgical registrars, Messrs. Bowlby and Lockwood.

LIBRARY TABLE.

Model Answers to Questions Set by the Sanitary Institute and the Sanitary Association of Scotland for the Examination of Sanitary Inspectors. Compiled from the *Sanitary Record.*—This little book adds one more to the large number of "aids" which are so constantly being issued to help the candidate through the trying ordeal of an examination and thereby both to satisfy the requirements of the examiner and to make the rough places smooth for the candidate himself. Could we feel sure that books of this type were properly utilised and accorded but a very minor place as a means of instruction by the candidate, they would no doubt be a real benefit to students; but too frequently they are only mastered for the occasion and then forgotten. As regards the answers returned to the questions, most of them appear to us to have been carefully drawn up and to merit the title of "model," although instances to the contrary are not wanting. Thus, on page 18, in describing how a room should be ventilated, only inlet ventilators are mentioned. A common lodging-house is defined on page 19 as being a "house kept for the accommodation of lodgers of the poorer class and so registered by the local authority," no mention being made of the fact that persons of the same sex, although strangers to each other, may inhabit the same room. Later on in the book, in answer to the same question, this fact is pointed out. On page 22, in describing how a receptacle for house refuse should be constructed, movable galvanised iron boxes find no place in the author's description. In stating what precautions ought to be taken in obtaining water-supply from wells in proximity to dwellings the author informs us "that the well should be sunk to such a depth as to reach *a water-bearing strata.*" In enumerating the appearances characteristic of tubercle in the carcases of animals the *liver* is spoken of as being "heavy, solid and incapable of distension, instead of light and spongy." In answering the question, How to ascertain whether a room is overcrowded or not? the author commits one of the faults most common to students—viz., that of wandering away from the point by first describing the various diseases which flourish under such conditions and then attacking the problem before him. In describing what he would do in his capacity of sanitary inspector on finding that a dairymaid suffering from scarlet fever was continuing at her occupation nothing more is recommended than the isolation or removal of the dairymaid. These are, however, only a few shortcomings amongst a great deal that is very good, and we have no doubt that if revised the book may prove a really useful one.

Handbook to Arcachon. By the Rev. SAMUEL RADCLIFF (British Chaplain). With Medical Appendix by Dr. FESTAL. London: Thomas Laurie. 1893.—This is a pleasantly written and apparently accurate account of this well-known French resort. The general situation, climate, scenic attractions, resources and accommodation, and special advantages of Arcachon are described from the point of view of a strong believer in the value of this sanatorium. The general influence of the climate upon disease is thus given on the authority of Dr. Hameau: "The climate of Arcachon is sedative to the nervous system. It places certain consumptives in a medium favourable to the cure of their disease and always to some degree of improvement when there is a predominance of the nervous system. It favours the cure of chronic bronchitis under the same circumstances. It is unfavourable to every disease of the chest in persons of a torpid and lymphatic temperament. It suits most asthmatic persons." We can corroborate these statements from our own knowledge.

New Inventions.

A NEW URETHRAL IRRIGATOR FOR THE TREATMENT OF GONORRHŒA.

MESSRS. KROHNE AND SESEMANN have manufactured for me an irrigator for the male urethra, which will be found very efficacious in the treatment of gonorrhœa. It consists of two parts—a guide and an irrigating tube. The method of using it is, briefly, as follows: The urethra having been cocainised, the guide is introduced to just beyond the inflamed mucous membrane, the extent of which has been previously noted by urethroscopy. The irrigating tube, attached by a piece of indiarubber tubing to a convenient receptacle containing the solution with which it is desired to wash out the urethra, is then passed along the guide. The flow being from behind forwards, all secretion &c. is washed out, and, as the guide puts the mucous membrane on the stretch, the latter is placed in the best position for the application of whatever solution the surgeon may elect to employ.

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West Halkin-street, Belgrave-square, S.W.

A SAFETY ENDOLARYNGEAL FORCEPS.

THIS instrument has been devised in order to combine the convenience of the forceps with the safety of the snare. It is practically a Mackenzie's cutting forceps with the cutting edges extended over a greater length, as in Gougenheim's model; but to the distal extremity of each blade is hinged a further prolongation, also provided with cutting edges, and these prolongations are again hinged to each other at their tips. It will thus be seen that when the handles are separated the proximal parts of the blades open like the inverted letter A, the distal prolongations like the normal V, and that a lozenge-shaped opening (◇) is formed, in which a growth can be readily caught. The instrument is made in two forms—one with lateral, the other with antero-posterior, opening—so as to be applicable to growths on the sides or in the commissures of the glottis. I have by means of it removed growths from the vocal cords at the first sitting. The confidence engendered by the knowledge that no gross lesion of the framework of the larynx is possible even on an intolerant and restless patient makes prompt operation more practicable than with unguarded forceps. The instrument is well adapted for the removal of outgrowths for the purpose of microscopical examination. The trigger catch on the lower handle gives additional steadiness of grip. Messrs. Krohne and Sesemann of London have taken great pains to carry out my idea. The necessity for good workmanship in an instrument where so much depends on the perfection of the joints is obvious.

DUNDAS GRANT, M.D.
Upper Wimpole-street, W.

THE "MIDGET" RAZOR.

MESSRS. R. HOVENDEN AND SONS of Berners-street, W., and City-road, E.C., have introduced a new safety razor styled the "Midget." It is a little instrument that may be recommended for use by those who from any reason are unable to use an unguarded razor. The "Midget" is also useful on shipboard.

THE LANCET.

LONDON: SATURDAY, JUNE 3, 1893.

WE publish to-day a special supplement in aid of the collection to be made on Sunday, June 11th, in the various religious congregations of the metropolis for the support of the hospitals and medical charities of London. That statement, which will be to-morrow (Sunday) very widely disseminated through the places of worship, calls attention to an aspect of the hospital question which is of special interest to our regular readers: that is to say, the system, or rather systems—for there are, in fact, several such systems—upon which the service of the sick poor has been organised in our great metropolis. The matter, as treated under this point of view, wears what will possibly be to most a new aspect, and it is one of which sight should certainly not be lost. Physicians and surgeons have much ground for considering that when they have given their personal service in this cause they have fulfilled their part of the task, and the work of organising and of administering in the business departments may fairly be left to other hands. But unfortunately, notwithstanding the widespread interest taken in medical charity and the generous support which its institutions receive from those who cannot personally share in the work of healing or alleviating the sufferings of the poor, the problems connected with organisation do not, in fact, appeal to the general public and have not, in fact, received the elucidation which adequate and enlightened discussion would certainly secure. Nor is this difficult to understand. The waste of energy which results from overlapping effort, the waste of material which arises from ill-devised schemes of work, the waste of resources which attends upon competition in philanthropy, all these are pernicious but subtle influences which onlookers may suspect but hardly can identify in the individual instance. Only to those who are intimately associated with and occupied in the work, does the opportunity occur of observing how their labours are hindered or their means restricted by such malign influences, and to them too often the principle applies that the dyer's hand is subdued to what it works in. A praiseworthy desire and effort to make the best of the situation, whatever it may be, result only too often in a tame acquiescence in a situation which ought to be vigorously criticised and energetically improved.

Considerations of this sort are not without their application to the medical charities of London at the present time, and although we are not able to lay before our readers in a popular article any exact or detailed statement of the facts it becomes clear, we think, from the mere sketch which is given in our Supplement to-day that room for improvement would certainly be found and hope of improvement as certainly resides in the testing of our existing organisation by the aid of well-settled principles. The great difficulty has been not to ascertain the principles but to ascertain the facts; for, whereas much has been known in a desultory way, there has never until now been any authority which could bring the scattered facts together or focus the disseminated knowledge. Such an authority was constituted when in 1890 a committee of the House of Lords was appointed to inquire into the condition of the hospitals of the metropolis. The report of that committee, though somewhat meagre and unfruitful of direct results, has presented to the world a very large body of invaluable evidence, from which it may be that hereafter a commentator will bring out the material facts. Yet even now it is plain that a well-devised scheme of coöperation would enable these institutions to aid one another materially for the public good. Our story to-day shows that the idea of such coöperation and supplementary work is by no means new, but was elaborated in connexion with the foundation of the London hospital system in the sixteenth century. Indeed, the philanthropists of the sixteenth century planned a scheme even larger and more comprehensive than the very boldest of us at the present day would venture to put forward as a working plan. Their devisings have proved to be in some measure counsels of perfection, and in practice have succeeded only to a partial and limited extent. Still that partial success has been a magnificent one, and we who have entered into their labours may well brace ourselves for a new effort to put the medical charities of our great metropolis upon a perfectly satisfactory footing by the consideration of how much has been accomplished in the past through the application to the problems of medical relief of principles which now bear the endorsement of three centuries of practical and successful application.

But these are items in a very large programme and much exceed the limits of the present occasion which arises out of the return of the season for the making of the Hospital Sunday Fund collection. Yet, though going beyond the necessity of the moment, considerations of this kind are by no means irrelevant to the matter in hand. In addressing our professional brethren, whose personal interest and advocacy have in the past been a very large factor in the success of the Hospital Sunday movement, and seeking to strike afresh the chord of sympathy which has responded so often and so tellingly in former years, it cannot be unfitting that we should give expression to views which their own experience has suggested, especially as in so doing we are strengthening the hands of the council of the Fund in the effort which they make by friendly criticism as well as by material support to promote that generous emulation and serviceable communication of the teachings of experience which must be amongst the most important fruits of any sound scheme of organisation of the charities.

THE long-expected report on Medical Aid Associations is now before the profession together with the judgment of the General Medical Council on the questions raised by it. The report itself is a document of sixteen pages and may well be studied by every medical man. It gives in a clear and concise form the general results of the inquiry with which Dr. GLOVER and his colleagues of the Medical Aid Associations Committee of the Council were charged, and throws an important light on the way in which some three or four hundred thousand members

of the working classes are attended. It is obvious that such an inquiry must have cost a great amount of labour and thought. It is satisfactory to know that the lay members of the associations or the committees which represented them showed every disposition to facilitate the inquiries of the committee; several of their secretaries or presidents had interviews with the committee and fully answered the many questions which were put to them. The medical officers, on their side, were asked to answer in writing a series of questions, and we gather that the information given was full and candid. Our readers will be curious to know the general results of this inquiry as regards the charges that have been brought against the associations by Dr. PHILLIPS and others, and also what is the view taken by the General Medical Council in respect of such charges. As these charges, as well as the answers of the associations to them, have been stated very fully in our own columns previously to their being referred to the General Medical Council for judgment, it will be easy to give in a short space their general nature and the drift of the evidence with regard to them brought before the Council. Dr. PHILLIPS's charges, speaking generally, were:

1. That the amount of work to be done was greater than could be accomplished satisfactorily and conscientiously.

2. That the associations made considerable profits, chiefly out of the subscriptions paid by the members, which subscriptions were earned solely by the medical officer, who received in return a fixed and inadequate salary—only a portion of the sum represented by the receipts from members.

3. That in most of the associations there was a considerable number of persons well able to pay the ordinary charges of a private practitioner.

4. That a bond was generally imposed by the committee of the associations, a lay body, restricting the right of practice in the town for a number of years.

5. That the system of canvassing or "touting" for patients was largely practised by the associations or by the friendly societies of which they were chiefly composed.

6. That the general effect of these associations was probably bad in the case of the public and certainly bad in that of the profession.

Such in general were the charges made against the associations. It must be admitted that they were made with great ability and much reiteration. It must also be allowed that in letters in our columns they were answered with equal ability, thus creating a case calling for the exercise of much judgment and moderation on the part of the General Medical Council, to which body by common consent the matter was referred; the Council, as we have seen, delegated the subject for inquiry to a committee of six members. The answers of the medical officers and ex-medical officers—eighty-five in all—being confidential, have not been published; but a summary of them will be found in our report of the proceedings of the Council on page 1346.

A very important part of the inquiry is that touching the ability of a considerable proportion of the members to pay a private practitioner, and we give below, as appears in the report, the first twenty and the last twenty of the answers of the medical officers on this point.

THE FIRST TWENTY.

Ability to pay.	
10 per cent.	Many.
3 to 5 per cent.	About half.
30 per cent.	Mostly poor.
A good number.	Some.
One-twelfth.	Many.
To a large extent.	Some.
Many.	Nearly all.
Many.	Two-thirds.
20 per cent.	Many.
The great majority.	Very few.

THE LAST TWENTY.

Ability to pay.	
Very few.	Only two (Glasgow).
50 per cent.	One-third.
Two-thirds.	Three-fourths.
Nearly all.	No doubt many.
Some.	"Members of friendly societies."
All.	Most seem well-to-do.
One-third could easily pay.	Many.
15 to 20 per cent.	More than should be.
Many.	Many.
Not many.	A small sprinkling.

The answers of the medical officers are curious and in some points do not bear out all the allegations of Dr. PHILLIPS, yet it is a serious matter that two-thirds of the medical officers—57 as against 27—have endorsed his views as a whole. A dispassionate study of the report and of the speech of Dr. GLOVER in explanation of it, which all will admit to have been temperate and conciliatory, will lead most to admit that in the following summary of the evils of the medical aid association system at page 15 of the report there is nothing unreasonable:

1. The excessive number of patients to be attended, in the case of many of the associations, causes great exhaustion and disheartenment in the medical officer.

2. Where there are so many patients it is impossible for them all to obtain adequate treatment from an overworked medical man.

3. In many cases the medical aid association is used by persons whose means and social position give them no claim to be treated on low terms.

4. The medical officer is at times placed in a position of great dependence, inconsistent with the conscientious performance of his duties.

Such, then, was the general result of the inquiry by the committee of the General Medical Council. Thereupon the difficulties of the committee began. It is not the custom, even if it is the duty, of the General Medical Council to lay down general principles of conduct for the guidance of registered practitioners. There are some reasons for this. In the first place much of the law of professional conduct is unwritten law and is certainly not contained in any well-defined code; secondly, the Council has only one strong adjective by which to define the sins of registered practitioners—they must be "infamous in a professional respect"; and thirdly, it has only one drastic punishment, that of erasure from the Register. Under these circumstances it is not remarkable that the terms in which the committee defined error of conduct were somewhat cautious and hesitating. Stronger words would probably have gained a few more votes for its recommendations, which will also be found in our report of the proceedings of the Council on another page.

The Council, as will be seen, was even more cautious than its committee. Beyond adopting the first recommendation, extending the offence of "covering" to the medical officer of an

association which employs an unqualified assistant, as if he himself were the employer, it contented itself with a general statement "that the investigation had not disclosed the prevalence of any offences which fall within the statutory province of the Council to deal with, but that the report of the committee with reference to certain evils which it describes could not fail to be instructive to the executive committees and medical officers concerned, and that the President be requested to transmit copies of the report to these committees and officers."

The Council has always been somewhat slow in recognising its disciplinary duties, as Dr. GLOVER pointed out was the case in regard to the evil of the employment of unqualified assistants. Having only one form of punishment the Council would act kindly, especially when so strongly appealed to, as it has been in this case, in framing rules, not indeed for the punishment of practitioners acting *bonâ fide*, but for their guidance and for the guidance of the Council itself when cases arise, as they have arisen, in connexion with this huge and important system. To discourage and condemn modes of practice which bring the profession into discredit and methods of acquiring practice which no honourable practitioner in his individual capacity would sanction is a duty which the Council owes to the profession as well as to the public. It may be right, having only one weapon, and that so formidable a one, to use it but little. If so, the sooner the disciplinary powers of the Council are made more available for milder offences the better. Meantime the profession must draw this lesson from the somewhat impotent action of the Council—viz., to protect itself and to stand upon its own dignity. The medical associations will, however, err if they think that the refusal of the General Medical Council to act as judge in this matter implies approval of the evils complained of. Even Sir JOHN SIMON expressed approval of the recommendations in the abstract, but declined to enforce "minor morals" by the authority of the Council. The "minor morals," however, cannot be disregarded with impunity either by the associations or by their medical officers. It is significant that the Council came very near passing Sir WALTER FOSTER'S motion which implied all that was essential in the recommendations of the committee.

THE announcement made on Wednesday, May 24th, by H.R.H. PRINCESS CHRISTIAN that the Privy Council had resolved to advise the granting of a charter to the Royal British Nurses' Association marks the satisfactory conclusion of a most unpleasing controversy. The vehemence of the opposition by which this institution has been beset is easy to understand, since powerful interests supposed themselves to be prejudicially affected, or at least threatened with prejudicial consequences, if the nurses of the United Kingdom should succeed in asserting for themselves collective unity and independence by means of a legally constituted corporation. It was said, and said with truth, in the course of the discussion, that an efficient nurse must be characterised by personal qualities which no training can impart, no examination can discover and no register avouch; and the fear lest members of the association should gain credit with the public for a qualification beyond their personal fitness was an apprehension natural enough and perfectly sincere in many minds, and, moreover, not in itself unreasonable. If considerations of this sort had been entitled to counterweigh those other considerations of the interest which both the nurses and the public have in making it easy to distinguish the trained nurse from the untrained, these antagonists of the scheme would have been not only honest but right. Now that the issue has been decided against them, and the charter has actually been granted, we trust that they will unite with the rest of us in giving a moral support to the incorporated association, and so far as in them lies contributing to the development of its indisputably useful features and the success of its work.

But whilst we offer our sincere congratulations to the promoters of the association upon their success in the very fierce struggle which has been forced upon them, we will venture to remind them that this is but the beginning of a career for the institution which has so far thriven most remarkably under their fostering care. They and the members of the association in general will not forget that the value which the public will eventually attach to the qualification of membership will depend not upon their success in argument but upon their success in the sick room. To be able to count distinguished supporters amongst their ranks, and to rely for countenance upon persons whom the nation honours, and for advice upon those whose ripe experience is amongst the treasures of the age, these are great advantages and even pledges of success; but the success itself must be won by the undistinguished members of the association, and in the course of everyday toil. Lord BACON nobly said that he held "every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to be a help and ornament thereto." This doctrine applies with special force to the case of a newly organised body like the Royal British Nurses' Association. The opposition which beset its infancy has now broken down. Before a tribunal which was bound to hear argument and decide judicially it has vindicated its right to exist and to receive a legal recognition of its aims and work in furtherance of the nursing interests, both public and professional. But it has still to vindicate its claim to rank in public estimation as a worthy custodian of the interests confided to its care. In what way these interests can be promoted by the discharge of public functions it would at this moment be premature to discuss, for as yet the text of the charter is not made public, and the limits of the powers conferred thereby are consequently undisclosed. But whatever the Crown may have conferred, it cannot have imparted to the association a virtue that will make it independent of the enthusiastic support of its members alike in the public defence of their position and the private practice of their art.

THE disciplinary powers of the General Medical Council are worthy of more study than they have yet received, both from a medical and a legal point of view. At the recent meeting there was much material for such study. The action of the Council and its refusal to act were alike interesting. The restoration of a name to the Register after a period of erasure for twelve months and the absolute refusal to go into a discussion of charges against a medical man for conduct

which, however bad, the Council did not consider "infamous in a professional respect," are both to be noted. The matter most worthy of remark was, perhaps, the disposition of the Council, as we pointed out last week, to prolong the period of erasure. The most acute critic of the Council will not charge it with seeking excuses for erasure or multiplying offences that lead to it. Accordingly, it is thought to be the more necessary that when erasure is ordered it should be for a period of time not less than two years. At the instance of Sir WALTER FOSTER a resolution was carried requesting the executive committee to consider the procedure of the Council under the penal sections with a view to formulating some more uniform system or more defined principles of action.

The Council had before it the reports of the Inspector and Visitors of certain of the examinations, with the answers of the examiners—viz., those referring to the Dublin University, the Royal University of Ireland and the Scottish Conjoint Board. There was a tendency to postpone all criticism of these reports till similar reports from all the other bodies were in hand, when there would be such an accumulation of material as would make attention to individual bodies impracticable. After a brisk discussion the view prevailed that these reports were worthy of individual and immediate attention. The report on the medical examinations in Dublin University was especially unsatisfactory. The faulty spelling of one of the candidates—a graduate in Arts—"beats the record" of such things and the defects in professional knowledge were equally grave; the Council passed a resolution calling "the serious attention of the authorities of the University of Dublin to the report." It is to the credit of the Council to deal thus faithfully with a distinguished University; no lower body can then complain if defects be pointed out in its own case. In the reports of the examinations of the other bodies there were indications of grave faults, though not calling for such serious notice as in the case of the University of Dublin. In the examinations of the Royal University of Ireland the rejections were 68 per cent.—chiefly due to failures in the clinical and practical parts of the examination. In the case of the Conjoint Board for Scotland, where the rejections are enormous, the clinical examinations are specially commended. It is, however, complained that candidates are examined by instalments. The rejections amongst candidates so examined are always higher than in the case of those examined in the whole set of subjects. It is sad, too, to read that these bodies do not require evidence of any knowledge of infectious diseases and are content with a practical education in midwifery, represented by six cases, the reason given being that more cannot be procured for the students. The report of the Finance Committee was satisfactory, showing receipts of £9301 13*s.* and an expenditure of £6992 19*s.* 1*d.*, or a balance of £2308 13*s.* 11*d.* to the good. This does not include, however, any notice of £1000 which the President told the Council was the cost of the law trial in which it involved itself and the College of Physicians in the most reckless and light-hearted manner. It is a large sum to pay for an adverse decision on a point that scarcely admitted of difference of opinion and compels the statement that the Council was led into it by two of its most astute and cautious members—a fact showing that the wisest men are not in every case necessarily the best leaders. The report of the Pharmacopœia Committee shows that the edition is still in demand, but not so much as in the previous year. There has been a reprint during the year of 3000 copies. In view of a revised edition, which cannot be expected before 1895 at the earliest, the Council authorised the committee to enter into communication with the India Office and the Colonies through the Privy Council as to certain changes making the British Pharmacopœia more practicable for acceptance by our various dependencies as recognising the use of their important natural drugs in pharmaceutical preparations. Not the least important work of the Council, done through its Educational Committee and chiefly at the cost of its chairman, was the report on the degree, in which the requirements of the examining bodies fall in with the recommendations of the Medical Council. There are still great "gaps in medical education." One body neglects proof of teaching in infectious diseases, another in midwifery, another in vaccination, another in mental disease, some bodies in two or three, some in most of these subjects.

The threatened rupture with the Apothecaries' Society on the subject of its persistence in holding a preliminary examination, not only for its own candidates but for the profession, has been for the present averted. The Council has not the power to compel the society to abandon its examination, which has not been proved to be a coarser sieve than some other preliminary examinations—even in arts. Still, the society has much to gain by respecting the very well grounded views of the Council on this matter. One of the last acts of the Council was to resolve to discontinue for the present the recognition of certain American diplomas in dentistry as being granted under conditions less stringent than those required for our home diplomas in dentistry. We notice in a separate article the action of the Council in the matter of Medical Aid Associations. When we consider the variety of the subjects it has handled we must admit it has gone over much ground. It seems to be at a disadvantage in having only a recommendatory as distinguished from a mandatory function. It is, however, indisputable that under its gentle and persuasive rule, though much yet remains to be done, great improvements are being effected in education and examination. But there are still great blots both in education and examination which require effacement.

Annotations.

"Ne quid nimis."

PROFESSIONAL EDUCATION AND THE GENERAL MEDICAL COUNCIL.

ONE of the most important subjects that has occupied the attention of the General Medical Council during its recent sitting has been the adoption and confirmation of the rules laid down by the Council to secure a definite system of medical education in Great Britain and Ireland. The regulations are printed on page 1350. The examining bodies have not adopted a uniform practice with regard to these requirements. The Conjoint Board in Ireland admits candidates to the final examination at the end of the fifth winter session, so that only a curriculum of four years and a half is required, and the English qualifying bodies accept as professional study attendance on the

scientific subjects if taken before registration, whilst the Council requires a five years' curriculum after registration and the Scotch Universities accept such attendance as the first *annus medicus*. The Education Committee of the Council has pointed out these deviations from the requirements of the Council and appears to be firmly resolved to secure as far as possible an absolute uniformity in medical education throughout the kingdom. It is obvious, however, from the tone of the discussion that some of the bodies will not alter their present regulations unless the Privy Council, on the representation of the General Medical Council, compels them to do so. The Scotch Universities are not likely to change their internal arrangements as settled by the Commissioners under the Scottish Universities Act at the order of the Council, and the English corporations can scarcely be expected to cancel their recent decision as to the passing of their candidates in science even before registration, as in this case a curriculum of even more than six years will be necessitated. We would call the attention of practitioners to another recommendation which was passed—viz.: "That the medical authorities be recommended to prepare by Jan. 1st, 1896, lists of medical practitioners whom they have recognised or propose to recognise as possessing opportunities of imparting practical knowledge to students during six months of the fifth year of medical study."

THE DIFFUSION OF SMALL-POX.

THE localities in which small-pox has been most prevalent since our last issue and the number of fresh attacks known to have taken place in them during the past week are: Birmingham, 27; Bradford, 13; Chadderton, 5; Halifax, 9; Hull, 7; Oldham, 16; Wakefield, 5; and West Ham, 19. The disease is also still prevalent in the borough of Leicester. Amongst other places in which the disease has occurred are Aston Manor, Bootle, Bingley, Blackburn, Burton-on-Trent, Burnley, Coventry, Darwen, Derby, Dewsbury, Eccles, Giggleswick, Holmfirth, Huddersfield, Hyde, Isleworth, Jarrow, Keighley, Lancaster, Leeds, Nelson, Nottingham, Newcastle-on-Tyne, Oldbury, Oxford, the Peak District in Derbyshire, Hadden Heights (where the militia are encamped), near Plymouth, Reading, Salford, Sheffield, Southampton, Stafford, St. Helens, South Shields, Tong, Tottenham, Warrington, Widnes, Withington, Worcester and York. In Warrington a distinct abatement has taken place, only 2 fresh cases being reported last week, and in Leeds, where 133 persons were still under treatment at the close of the week, it is believed that a marked diminution has set in. The persistency of the epidemic in Chadderton and Oldham, where the borough hospital used for small-pox is near the confines of the two towns, is a matter that should be carefully investigated, in so far as "hospital influence," so called, is concerned. On May 29th 563 cases of small-pox were under isolation in the hospital ships belonging to the Metropolitan Asylums Board or at Gore Farm Hospital, 26 fresh cases having been received on that day.

EXPERIMENTS ON LIVING ANIMALS.

THE return just presented to Parliament on this subject exhibits the scrupulous care observed by the carefully selected licensees to accomplish their humane purpose with a minimum of suffering to the animals experimented upon. The total number of experiments in Great Britain during 1892 was 3960. Of these 1069 were physiological, 2290 pathological and 601 experimental. These figures reveal both the methods and aim of so-called "vivisection"—namely, cautious investigation of the problems of life, a great attention to the processes of diseased action, and a rational application of scientific methods to the treatment of disease and the relief of suffering. The few figures from Ireland teach the same lesson. Except in the most trivial operations—such as inoculation—anæsthetics have been efficiently employed. Schedule E, concerning experiments "without anæsthetics," is a title capable of exercising the righteous indignation of the antivivisectionist lecturer, whose "winged words," entering like so many arrows the hearts of his audience, give more pain to them than do the trivial inoculations referred to in the schedule to the animals subjected to them. It is not to be expected, however, that such ample evidence of care to avoid pain and the necessity for performing experiments on living animals will materially alter the attitude of the perfervid and ignorant critics of processes and aims of which they cannot judge, but from which they daily reap the benefit in the enlightened treatment of their own diseases by the medical profession. Few benefits have become the possession of our race except through the gates of sorrow and suffering, and if man is not entitled to gain from the necessary suffering of the lower creation some alleviation of his own and their ills that interpretation of the universe which makes a beneficent and merciful Creator its moving spirit must be erroneous, and the hope that inspires the thought "Per aspera ad astra" only a baseless and futile conjecture.

DEATH CERTIFICATION IN FRANCE.

THE *Law Journal* lately published an interesting account of the methods of death certification in France and the history of such methods. In France generally there seems to be a system not unlike our own, the mayor satisfying himself with a bulletin from the medical man who attended the case; but in Paris and the suburbs the practice of appointing in every district a *médecin vérificateur* is firmly established. As the medical man does not—is not allowed by law to—dispense his own medicines, but is obliged to have them dispensed by an apothecary, the verifying medical man is enabled to see at the apothecary's establishment the nature of the medicines supplied. In France generally the procedure in cases where violence is suspected is not satisfactory, the civil code merely providing that burial shall not take place until a police officer, assisted by a doctor of medicine or a surgeon, shall have drawn up a report on the state of the body and the circumstances of the deceased.

THE PATHOLOGY OF TRAUMATIC EPILEPSY.

IN a recent number of the *New York Medical Record* Dr. Ira van Gieson gives a short clinical description of two cases of traumatic epilepsy on which operations were performed and a very full account of the histological changes which were found. In each case only the portion removed at the operation was investigated. The first patient was a man aged twenty-four who in 1888 met with an injury producing a fracture on the right side of the skull. Three years after the injury attacks came on, which commenced with movement of the left arm. He sometimes had two fits in a day, and although bromides reduced them in frequency it failed to arrest them. He was trephined by Dr. McBurney, who found that, although the internal table was uninjured, the dura mater was thickened and the brain cortex was discoloured and soft. No cyst was found, but apparently, although it is not stated, this discoloured part of the cortex was removed. The patient improved at first, but the fits recurred, became more frequent, and six months after the operation the patient died in convulsions. Examination of the removed portion of brain revealed the presence of a rigid, apparently calcified piece of connective tissue pressing against the brain and presumably acting as a foreign body. Under this the pia mater was in a condition of chronic inflammation, being thickened to a moderate extent by the presence of an increased amount of connective tissue. In the cortex itself no gross changes are described, but a minute and detailed examination revealed the presence of marked degenerative changes in the ganglion cells, amount-

ing in advanced stages to almost complete dissolution. The second case was that of a boy aged fourteen, who, when four years of age, had a severe fall, in which the skull was fractured over the left coronal suture. This produced a condition of right hemiplegia, traces of which were evident at the time of the operation to be mentioned presently. At the age of twelve and a half, however, he had a second fall, and soon after this began to suffer from fits beginning in the right hand, not affecting the face, except rarely, and unassociated with loss of consciousness. Dr. McBurney was again the operator and found the dura mater adherent to the bone and also to the thickened pia mater, which contained a cyst. This was emptied and its walls were removed. During the next three months there were no fits, but then a recurrence took place, and it was found that there was a small collection of pus in the scalp, which was evacuated, and the patient remained free from fits for another three months. They returned, however, affecting only the right side, and, as bromides failed to relieve, another operation was advised. A more extensive removal of bone revealed the fact that the dura mater here was also thickened and adherent to the altered pia mater, and on puncturing this a small amount of serous fluid was removed from a cyst lying half an inch beneath the cortex. Another and similar cyst was found further forward and both were removed with the surrounding thickened tissue. The patient made a good recovery and at the time at which the report was written there had been no recurrence of the fits. Examination showed that in the part removed there were dense masses of connective tissue encroaching upon the convolutions and in some places almost isolating small islets of grey matter and surrounding them. Changes almost identical in character with those described in the first case were found in the ganglion cells and there were also changes in the white matter of the convolutions. Although Dr. van Gieson is very cautious in drawing any inferences, it seems impossible to doubt that the changes described must have had a very close causal relationship with the symptoms present in the two cases.

THE INTERNATIONAL MEDICAL CONGRESS.

FROM Rome our own correspondent writes under date May 25th: "By the 15th inst. the scientific communications (that is, the monographs, theses, notes and such-like) to be brought before the Congress, the subjects of which have been notified to the general secretary, reached the number of two hundred and fifty. Of course but a small proportion of these can be read or discussed in full, and the working staff of the various sections will find much to do in sifting the mass and selecting those which will be of opportune and universal interest. In the secretarial office there has been compiled a series of detailed instructions for the use of non-Italian participants at the Congress. This includes itineraries of the various direct routes, by land or sea, as far as the Italian frontier or coast. It also specifies the direct or circular routes through Italy from each point of arrival, giving the relative fares. The whole has been already printed and has either reached the different countries and cities to be represented at the Congress or is now on its way. The Medical Society of Cracow has constituted a special "National Committee of Poland," extending to every community of Polish nationality throughout the Russian, German and Austrian Empires. Its president is Dr. Napoleon Cybulski, Professor of Physiology in the University and member of the Academy of Sciences, Cracow. A Portuguese National Committee has also been formed: President, Señor José Thomaz de Sousa Martins; members, Dr. Daniel de Mattos (Professor of Clinical Surgery, Gynæcology and Children's Diseases in the University of Coimbra), Dr. Gregorio Rodrigues Fernandes, Dr. Illydio Ayres Pereiro do Valle of Oporto, Dr. José Joachim da Silva Amado, Dr. Manuel Vicente Alfredo da Costa and Dr. Virgilio Cesar da Silveira Machado; secretaries, Dr. Guilherme M. da Silvo Jones (editor of the *Corriere Medico* of Lisbon), Dr. Henrique Mouton and Dr. José Eduardo Fragoso Tavares (editor of *La Medicina Contemporanea* of Lisbon). This committee has sent invitations to all the practitioners and professors of medical science throughout Portugal and has obtained from the Portuguese Government a 50 per cent. reduction of fares on the Government railways and a similar reduction on the railways of private companies. The Minister of Foreign Affairs of the Republic of Ecuador has announced on the part of his Government that its representatives at the Congress will be Drs. Riccardo Ortiz and Riccardo Cucalon of Guayaquil."

RECENT DEATHS IN THE PROFESSION.

THE recent deaths of two such men as Mr. Marcus Beck and Dr. Hadden has caused a sense of grief and shock in the profession, and that not least amongst its older members who well knew the work they had already done and all the promise that was in their lives. "Mixta senum ac juvenum densentur funera." As Burke said when he lost his only son, "we live in an inverted order." So it has seemed to the older men amongst us whose time of comparative rest has come and who are yet happy in the prospect of the continuity and development of their own work in its essence and its fruitfulness by younger hands. Happy the profession whose younger members can receive even in early death such tributes as are paid to Marcus Beck and Walter Baugh Hadden—tributes which we on our part assist in recording to-day in our columns.

PREVALENCE OF FEVER.

SCARLET FEVER continues to increase, to judge by the returns of the week ended May 20th. London contributes more than 600 of the total 1600 cases reported from the chief cities and towns—a larger proportion than it has for some time past furnished. This coincides with the increasing difficulty of the Asylums Board to provide beds for the scarlet fever patients in London. Sheffield, Manchester, Liverpool, West Ham and Leicester all had a large number of cases of this disease during the week noted. Of the 350 cases of diphtheria more than 200 belonged to London and about one-fourth of these were fatal, exceeding the corrected average by 30. Manchester and Cardiff again contributed most of the other cases. Enteric fever showed some increase, but the metropolis was responsible for less than a third of the total number of cases. The number of scarlet fever cases under treatment in the fever hospitals of London showed an increase of 50 during the week, but the diphtheria cases were less than in the previous three weeks. Enteric fever is reported from Kirkintilloch and Lenzie, near Glasgow; whilst the epidemic at Moira continues. Diphtheria has occurred in fatal form at Newport (Mon.), having been brought there by a German vessel. Scarlet fever has appeared in Armagh and this disease is said to be prevalent in a widespread manner at Woking, where the isolation accommodation is said to be inadequate.

THE PASTEUR INSTITUTE IN 1892.

"NOTHING succeeds like success," and therapeutic methods, however open to theoretical criticism, will always be judged by the proportion of well-authenticated cures over equally well-authenticated failures. In France and Italy especially the Pasteur treatment of rabies is steadily gaining ground, mainly on the strength of statistics which, leaving controversy on one side, present to the world an unusually increasing ratio of "successful cases." During 1892 we learn from the Annals of the Pasteur Institute that 1793 patients were treated for bites inflicted by rabid animals. Of these seven died, giving a mortality of 0·39 per cent.; but if we wish

to judge of the real efficacy of the anti-rabic inoculations we must admit into the percentage only those of the fatal cases in which the first symptoms of rabies manifested themselves more than fifteen days after the last inoculation. Now of the seven persons who died in 1892 three only were seized with rabies in less than fifteen days after the end of the treatment. The definitive results are, consequently, the following:—

Persons cured	1790
Deaths	4
Mortality per cent.	0·22

This last figure is the lowest hitherto obtained, as may be seen from the following table:—

Years.	Persons treated.	Deaths.	Mortality per cent.
1886	2671	25	0·94
1887	1770	14	0·79
1888	1162	9	0·55
1889	1830	7	0·38
1890	1540	5	0·32
1891	1559	4	0·25
1892	1790	4	0·22

Five other persons died of rabies during the inoculations. The treatment in their case not having been completed, they cannot be entered in the number of those "dead after treatment." The next table, which contains the results declared from the origin of the inoculations, enables us to judge of the gravity of the bites according to their seat:—

Situation of bite.	Persons treated.	Deaths.	Mortality per cent.
Bites on the head ...	1078	16	1·48
Bites on the hand ...	7175	40	0·55
Bites on the limbs ...	4529	11	0·24

Thus the average mortality has been a little over 0·5 per cent. on a total number of 12,782 persons treated. As already indicated, in the statistics of the preceding years the specially grave character of bites on the head is manifest not only from the figures of the above table, but also, and above all, from the fact that nearly all the persons in whom rabies declares itself during the inoculations had been bitten on the head. This is the case in particular with the five deaths which happened under treatment and which have been already noted. The statistics of the next greatest anti-rabic institute after the Pasteur—the Istituto Antirabico of Milan—have hitherto confirmed these results, and those for 1892, shortly to be published, are anticipated with interest, as tending to modify or strengthen the inductions reached at the parent institution.

ANOMALIES OF PHARMACY.

DR. JOHN ATTFIELD, the reporter on the British Pharmacopœia to the General Medical Council, rarely fails to discover some interesting details which are worth serious attention. This year his report offers no exception to the general rule. Mindful of the fact that the British Pharmacopœia is "intended to afford to members of the medical profession and those engaged in the preparation of medicines throughout the British Empire one uniform standard and guide," Dr. Attfield has been endeavouring to ascertain how far it really governs the practice of pharmacy in the more distant parts of the Empire. Dealing with opium alone the following curious state of affairs has been disclosed. In India, although practically all the many preparations of opium are made according to the official processes, and the doses are practically the same as those administered in Great Britain, yet Indian opium is employed in place of Turkish opium. This is natural enough, and might indeed have been anticipated, but it must be remembered that the average morphine strength of Indian opium is not much more than half the strength of Turkish opium. It is further noted that though these preparations are employed in India by an aggregate of over 900 qualified British medical practitioners no comparative experiments have, apparently, been made to test their relative narcotic effects. Dr. Attfield leaves us on the horns of a dilemma; either the morphine strength of a preparation of opium is a trustworthy guide to its narcotising power, and the Indian preparations are only half or two-thirds the prescribed official strength, or else the preparations made from Indian opium are as strongly narcotising as those made from Turkish opium and therefore the morphine strength is not a trustworthy indicator of narcotising power. The natural conclusion reached is that many changes must be made if the British Pharmacopœia is really to be the uniform standard throughout the British Empire. A second important topic raised in the report is the nature of the menstruum to be employed in the formation of tinctures, and the desire to find for each tincture a separate and appropriate menstruum selected only after trustworthy experiment, instead of relying upon rectified spirit and proof spirit. Farr and Wright, who have been working largely at this subject, have suggested that spiritus rectificatus should be increased in strength to a round number—90 per cent.—and that three further preparations, containing respectively 70, 50 and 30 per cent. of alcohol, should be added. Whilst recognising the desirability of suiting the menstruum to the drug, Dr. Attfield argues against the introduction of these three new preparations of alcohol and thinks the same end might be attained by a simple alteration of the present formulæ for the preparation of tinctures. The desire for this change is justified by the statement that experience has shown that the menstrua at present employed are too weak in some cases and too strong in others, some of the active principle of the drug remaining in the insoluble "marc," or, if wholly dissolved, being accompanied by soluble substances which are useless or harmful.

SMALL-POX IN SCOTLAND.

THE Montrose outbreak is at an end for the present. It consisted of eleven cases, of which seven were treated in hospital. In Glasgow there were ten new cases last week. The sanitary authority found it necessary to prosecute a householder for intentional concealment of a case. A servant girl left her situation and went to reside with a woman who had two sons and a daughter working in the town and two lodgers, one being the servant girl and the other a waitress in a public restaurant. The house consisted of three apartments. The girl developed small-pox, but no intimation was made to the authorities, and when, owing to outside information, the house was visited by an inspector the existence of the case was denied and a variety of misstatements were made. As soon as the authorities definitely ascertained the facts, however, the case was removed to hospital and all the inmates were revaccinated; but owing to the concealment two neighbours in the same tenement were infected and also a former fellow-servant who had simply stood at the door for a short time. The sheriff inflicted a fine of forty shillings with the alternative of seven days' imprisonment. The accused said that she would go to prison. The sheriff said ten days would be allowed for the payment of the penalty.

"ORTHODONTIA."

A COMMON form of irregularity in teeth and one difficult of satisfactory treatment is an undue protrusion of the upper incisors, especially when the deformity is of a hereditary character; hence any new light upon the subject is always welcome. Messrs. S. J. Hutchinson and Morton Smale at the last meeting of the British Dental Association brought forward some illustrative cases. In some cases of superior protrusion the lower incisors bite against the necks of the upper incisors; in others the upper teeth are in front of the lower, which often in this condition form a flattened arch, whilst the upper form a pointed one. When the front teeth are well in front of the lower incisors it is possible to effect a very good result by the extraction of the upper first

bicuspids only, but when the lower incisors impinge on the necks of the upper ones or even on the gums behind them it is then needful to extract all four first bicuspids. The points upon which particular stress was laid by the writers of the paper were — first, that the regulating apparatus should cap or cover the first molars and second bicupsids and leave the second molar free to grow up and thus form a prop at the back of the mouth, so that when the mouth is closed the lower incisors shall not impinge upon the upper ones; next, that the motive power in the retraction of the front teeth should be continuous, this principle following Sir James Paget's aphorism that "Constant pressure produces absorption, but intermittent pressure produces hypertrophy"; this may be carried out by means of an india-rubber band passing over the front teeth, or a wire regulated by a screw and nut; and, lastly, that the retaining plate should be worn for two years, at any rate at night. This last requirement is difficult to carry out in practice, and if not faithfully followed permits the original deformity to recur and thus brings discredit upon the dental surgeon. The better plan is, perhaps, to fix a retention plate which cannot be removed by the patient.

VACCINATION IN RELATION TO LIFE ASSURANCE.

MR. A. H. SMEE, chief medical adviser of the Gresham Life Assurance Society, in seconding the adoption of the report submitted to the board, called the special attention of the medical examiners of the Society to the question of vaccination in relation to life assurance. In the course of his speech he said: "It has been observed that during the past year many proposals have been received from persons who have not been vaccinated. At the present time small-pox appears to be on the increase in England and threatens to assume epidemic proportions. The board have, by my advice, always refused to entertain proposals from such persons. I should require not less than five guineas per cent. in addition to the ordinary premium to cover the extra risk for persons not protected by vaccination at the beginning of an epidemic period, which would be a prohibitive rate, and I am doubtful whether even at that rate the acceptance of such persons would prove profitable to the Society."

THE ANALYSIS OF SOUR MILK.

IT appears from the reply of the President of the Local Government Board to the question raised by Lord G. Hamilton respecting the analysis and reports of the Somerset House chemists with regard to samples of milk that had been kept for a considerable time that no analysis of a sample is undertaken if the latter is found in a condition which does not allow of a trustworthy opinion being formed respecting its original composition. From this it seems pretty clear that the original composition of the milk must frequently be arrived at by deduction rather than as a result of direct observation or experiment. It might therefore be very naturally inquired as to how far advanced the stage of decomposition may be allowed to proceed before the results of analysis are considered trustworthy or not trustworthy. For our own part we have always urged that it is obviously unfair to accept, in preference to the analysis of the fresh sample, the results of an analysis of sour milk in which certain deductions have to be made depending upon the complex and but imperfectly understood changes that take place. We need hardly cite the difficulties which are presented when an analysis of sour milk is attempted. Suffice it to mention one, that of obtaining a perfectly uniform sample after the proteids have been completely coagulated and separated by the action of the lactic ferment. It would be absurd to suggest that a complete and exhaustive analysis of every sample of milk secured by the inspector under the Act should be made without delay by the Somerset House officials, but might not the specific gravity of the sample, for instance, be ascertained at once, so as to serve as a check on the subsequent analysis of the decomposed sample from which the original composition of the milk is deduced?

SIR WILLIAM JENNER ON FEVERS.

MANY members of the profession will be glad to hear that the papers and lectures upon the subjects of the specific fevers and on diphtheria which Sir William Jenner has contributed to journals and societies from time to time within the past forty years have been collected and arranged by him for early republication. The history of the question of the non-identity of typhus and typhoid fevers would be incomplete indeed without a reference to these masterly monographs, which will soon be available to all in a permanent form.

FINE FOR USING MEDICAL TITLES FALSELY.

AT Accrington, Henry Hawkins of Heywood was lately summoned by the Blackburn and District Medical Association for putting up in the Rechabites' Hall his name with the prefix "Dr." and the letters "M.R.C.S." after the name. He had also signed a certificate with the four significant letters attached to his signature. He had practised as an "oculist and aurist." His previous occupation had been that of a gas manager at Heywood. His excuse for giving this up and turning "oculist" was that he had so many eye and ear cases. He said, too, that he had been a medical student. It is a pity his studies had not embraced the right to use titles which he knew he did not possess. He was fined only £5 and costs, with the alternative of a month's imprisonment.

TREATMENT OF SCIATICA.

ANY new suggestion as to the treatment of sciatica will be welcomed by those who have been impressed with the intractable nature of some of the cases of this malady. In a recent number of the *American Practitioner and News*, Dr. Charles B. Lawrence gives a short account of his experience with different methods of treatment in sciatica. The most instructive case is that of a man of fifty-two, a carpenter who had suffered from sciatica for seven weeks. He was emaciated and pale and had been taking morphia to relieve his pain and he was now unwilling to leave it off. There was great tenderness along the whole course of the nerve, the patient was unable to use the leg and was in constant pain. Various methods of treatment were tried but ineffectually. Finally nitro-glycerine was given in an alcoholic solution of 1 per cent. strength, commencing with a dose of one minim three times a day, gradually increased up to five minims. Improvement was almost immediate, and in ten days the patient was able to walk to his work. A complete recovery ensued.

CENTRAL CHANGES IN PERIPHERAL NEURITIS.

IN a recent number of the *Zeitschrift für Heilkunde* there is an important paper by Dr. Campbell on this subject, an abstract of which appears in the last number of the *Neurologisches Centralblatt*. In four cases, presenting the usual clinical picture of alcoholic polyneuritis, the writer examined not only the peripheral nerves but also the central nervous system. Besides the usual changes in the peripheral nerves, he found in the spinal cord scattered degeneration of fibres through the whole of the white columns, with a special affection of the posterior columns and Lissauer's tract, and in the roots, especially the posterior, evidences of degeneration, whilst in the medulla oblongata there were evident, scattered through the pyramids, numbers of degenerated fibres. He is therefore inclined to think that alcoholic neuritis is not a

simple affection of peripheral nerves but is a toxic process, with widespread affection of the nervous system, central as well as peripheral. This may be true of some cases, but there is no doubt that in others the degenerative effects are recognisable only in the nerves.

EFFECTS OF DRY CUPPING ONE OR MORE LIMBS.

DR. T. KREINDEL, who has made some observations with an apparatus constructed on the principle of Junod's boot, finds that diminished atmospheric pressure applied to one or more limbs produces a diminution of blood pressure, increased frequency of respiration and cardiac contraction, together with a lowering of the temperature of the body.

SUPPRESSION OF PHOSPHATES IN FEVER.

DR. FREUND of Vienna, having remarked that in cases of febrile rigors the urine ceases temporarily to contain phosphates, administered to a patient with intermittent fever phosphoric acid during the intermissions, the phosphates in the urine being thus increased. As soon, however, as the cold stage of the fever came on the phosphates disappeared from the urine and only regained their ordinary quantity after the lapse of some hours. He concludes, therefore, that the absence of phosphates is due to their retention in the system rather than to suppression of the metabolic changes to which their excretion is due.

THE EFFECT OF A HIGH TEMPERATURE ON THE WHITE BLOOD CORPUSCLES.

DR. E. CHLENOFF has found that when dogs are kept for five or six hours at a temperature of 107° F. the white corpuscles in the blood diminish to half their ordinary number, but the number of the red corpuscles and the amount of hæmoglobin they contain remain unchanged. After a lapse of twenty hours, when the temperature has fallen to normal or even lower, the number of white corpuscles may be found to have increased somewhat beyond the usual limit.

FOREIGN UNIVERSITY INTELLIGENCE.

Barcelona.—Dr. Fargas has been selected by competition for the Professorship of Midwifery and Gynæcology.

Breslau.—Dr. Eugen Fraenkel, *privat-docent* of Gynæcology, has been promoted to an Extraordinary Professorship. Dr. Filehne, Professor of Pharmacology, having obtained eighteen months' leave for the purpose of making scientific investigations in America, Dr. Geppert of Bonn has been appointed as his substitute.

Göttingen.—Dr. Beneke, Prosector of the Ducal Hospital in Brunswick, has been recognised as *privat-docent* of Pathological Anatomy.

Innsbrück.—A students' disturbance has occurred in consequence of some military regulation concerning their period of military service and they have all refused to attend lectures.

St. Petersburg (Medico-Chirurgical Academy).—Dr. V. I. Dobrovolski, Professor of Ophthalmology, has resigned.

Tours.—The new Professorship of Physics has been filled by the appointment of Dr. Wolff.

Vienna.—Professor Alexander Kolisko has been offered the chair of Pathological Anatomy vacated by the death of Professor Kundrat.

OF the 375 houses in the City of London inspected during the past fortnight Dr. Sedgwick Saunders, the medical officer of health, reports that forty-two required sanitary improvement. He also reports that during the same period fifteen tons of meat were condemned at the markets. The birth- and death-rates were 12·13 per 1000 of the population per annum.

THE Cavendish Lecture will be delivered on Wednesday, June 14th, at the West London Hospital, Hammersmith, by Mr. Henry Morris, M.A., M.B., F.R.C.S., on the subject of "Some Changes in Surgical Opinion regarding the Diseases of the Urinary Organs." The West London Medico-Chirurgical Society will afterwards hold a conversazione.

AT the Cochin Hospital, Paris, on Tuesday last, two new wards, fitted up with the most approved antiseptic arrangements, were opened. They are named respectively the "Lister" and the "Pasteur" wards.

A FRENCH HOSPITAL is about to be established in Brussels at a cost of 50,000 francs.

THE annual conversazione of the Royal Society will be held on Wednesday next, June 7th.

THE DEBATE ON MEDICAL AID ASSOCIATIONS AT THE GENERAL MEDICAL COUNCIL REGARDED FROM A LEGAL POINT OF VIEW.

(BY A MEMBER OF THE BAR WHO WAS PRESENT.)

THE report of the committee on Medical Aid Associations gave rise to a most interesting and important debate. On all hands it was admitted that the committee, of which Dr. Glover was chairman and Mr. Wheelhouse, Dr. Leech, Mr. Teale, Dr. Bruce and Dr. MacAlister were members, had completed the onerous task assigned to them by the Council's resolution of November last in a manner that called for special acknowledgment. All the material facts encountered in the course of the committee's investigations were set out clearly and impartially in the report without any intrusion of irrelevant topics or misleading suggestions, so that the Council had the advantage of being left face to face with the evidence that told for and against the specific recommendations submitted for their acceptance. Of course, quite apart from any justification that these recommendations might derive from facts disclosed in the report, they had to be justified by reason of their own intrinsic reasonableness and fitness to effect the purposes for which they were proposed.

The debate was opened by Dr. Glover, who in a lucid and judicial speech reviewed the evidence that had been taken by his committee and pointed out its bearings upon the matters submitted to the arbitrament of the Council.

The adoption of the first recommendation was unanimously agreed to. It simply extends the rules already laid down by the Council as to "covering" unqualified assistants to the case of a medical officer of a Medical Aid Association who acts with an unqualified assistant. It need hardly be pointed out that the two forms of "covering" are distinguishable. In the one case the qualified man stands in the relation of employer to his unqualified assistant; in the other both are engaged by a common employer in a common employment.

The second recommendation ran thus: That the Council do record its opinion that a medical practitioner is acting in a reprehensible manner—(1) if he holds a medical aid appointment the duties of which are so onerous that he cannot do justice to the sick under his care; (2) if he consents to give certificates where in his opinion they are not justifiable on medical grounds; (3) if he accepts or retains employment by an association in which canvassing is used to attract members.

Obviously the committee shrank from advising the Council to say that the conduct above particularised was "infamous in a professional respect." The logical weakness of this position was quickly made apparent when Sir John Simon rose and pointed out that the Medical Act provided no machinery for dealing with the "minor morals" of the profession or with mere commercial and economic questions affecting medical practitioners, and that they would be acting *ultra vires* if they claimed to exercise any disciplinary supervision in such matters.

It was a perfectly fair argument to accept the committee's

own estimate of the conduct they thought "reprehensible" but not "infamous," and in effect to say: "Since you do not consider this to amount to the only conduct we are empowered to deal with—viz., that which is 'infamous in any professional respect'—you make out no case for our intervention." Had the committee asked the Council to say that the practices described in Recommendation II. were "infamous" the result might have been the same, but the discussion must have taken a very different course. Then neither the *ultra vires* argument nor the question-begging "minor morals" view would be available to confuse the real issues of the situation. It would not be contended that the General Medical Council had not the power to say, if they thought fit, that a certain definable sort of conduct was "infamous." That function is vested in them by the Medical Act. They are, in fact, constituted the sole judges by that Act of what "infamous conduct" is. "The Legislature," as was said in one of the early decisions on the Act, "considering them the best judges in such a matter, have left the matter in their arbitrament." What, therefore, the General Medical Council, acting honestly within their jurisdiction, declare to be "infamous conduct" is conclusive. They were not asked to make any such declaration in reference to the matters referred to in Recommendation II., and they refused to pronounce them "reprehensible" by eighteen to seven votes after a very animated discussion.

That the Council did not feel very sure of their ground in rejecting the recommendation is clear from the fact that when it reappeared in a very thin disguise in Sir Walter Foster's amendment it received a good deal more support and was only defeated by the narrow majority of fourteen to twelve votes. This decision might be taken as indicating a very real anxiety on the part of an influential minority of the Council to find a remedy for the evils brought to light by the inquiry of the committee, and it would be very unsafe for Medical Aid Associations and their medical officers to assume that the second resolution imposes no obligation on them to mend their ways. The resolution seems to us calculated to mislead medical officers of Medical Aid Associations as to the statutory powers of the Council. The better course would have been to transmit the report to the Medical Aid Associations, leaving it to convey its own lesson without note or comment.

There ought to be no doubt in the medical profession as to the disciplinary powers of the Council under the twenty-ninth section of the Medical Act, but whether the practices struck at in the second recommendation are such as call for the exercise of those powers is a very grave question and one which was not by any means disposed of by the resolution appended to the report. With great deference to Sir John Simon, such practices cannot be summarily dismissed as belonging to the "minor morals" of the profession. Surely where the issue raised is "efficient practice," as is the case in the first part of Recommendation II., a "major moral" question of the first order comes up for judgment. The "morals" too are just those that the public are entitled to have warranted sound by the Council. Let it be borne in mind that the object of the Medical Act is to enable "persons requiring medical aid to distinguish qualified from unqualified practitioners." To do this effectually a General Medical Council is created and armed with adequate powers for ensuring that only persons possessing the "requisite knowledge and skill" for the "efficient practice of their profession" shall be admitted to registration. The Council can go behind diplomas and licences to ascertain whether their face value corresponds to a sufficiently high real value and can invoke the aid of the Privy Council to compel the bodies conferring them to bring up the professional training of their students to a sufficiently high standard. Is it to be said that, after all precautions are taken to guard the portals of the medical profession against the entrance of persons without the necessary knowledge and skill for "efficient practice," no duty devolves on the Council to see that a registered medical practitioner does not deliberately put himself from year's end to year's end in a position in which the efficient practice of his profession is impossible? If that be a "minor moral" question, it is at any rate one which involves the health or lives of the Queen's subjects.

Nor can the granting of medical certificates on insufficient grounds be treated as a "minor moral" offence. The Legislature has attached particular importance to medical certificates. The Courts recognise them as evidence of the state of health they certify. To grant false certificates is assuredly more blameworthy professionally than "telling lies," as the offence was characterised by an eminent member of the Council.

That the great professional and public interests which are entrusted to the General Medical Council are in perfectly safe keeping must, I think, be the verdict of an intelligent and disinterested listener to this debate on Medical Aid Associations. Moreover, I feel satisfied that he would not fail to gather from the discussion that it would be quite impossible to induce the Council to move forward even along the path marked out for it by the Medical Act except in the most gradual, prudent and cautious manner.

UNCERTIFIED CAUSES OF DEATH AND INQUESTS.

IT appears from the Registrar-General's Annual Summary for 1892, recently issued, that 4180 deaths were registered in thirty-three of the largest English towns during that year without any legal certification of the cause of death. Of these deaths 804 occurred in London, 594 in Liverpool, 519 in Birmingham, 293 in Sheffield, 239 in Manchester, 168 in West Ham, 160 in Hull, 152 in Salford and 100 in Preston. On the other hand, the cause of every death was duly certified in Croydon and only 12 uncertified causes of death were recorded in Burnley. The percentage of uncertified causes of death in 1892 averaged 2·0 in these thirty-three large towns, and ranged from 0·0 in Croydon, 0·5 in Birkenhead, 0·7 in Burnley and 0·9 in London and Leeds, to 4·0 in Hull, 4·2 in West Ham, 4·3 in Sheffield, 4·5 in Halifax, 4·7 in Liverpool and 5·3 in Birmingham. The cause of this wide range of proportions of uncertified deaths in the large English towns appears to be a fitting subject for the attention of the Select Committee of the House of Commons which is now taking evidence on the subject of Death Certification. These figures should, moreover, be carefully considered in relation to the proportion of inquests held in the various towns, which varies almost as widely as the proportion of uncertified causes of death. During the year 1892 the percentage of inquests to total deaths in the thirty-three towns averaged 6·8, and ranged in the several towns from 2·6 in Preston, 3·4 in Burnley, 3·5 in Birmingham and 3·6 in Brighton and Huddersfield, to 7·8 in London and Manchester, 8·3 in Sunderland and Newcastle, 8·6 in Gateshead, 8·9 in Derby and 9·4 in Birkenhead. The variations in the proportions of inquests held are to a slight extent due to the varying proportions of deaths from violence; but this factor can only account for a small part of the differences. For instance, the death-rate from violence in 1892 was almost identical in Birmingham and Birkenhead, and yet the proportion of inquests in these towns was 3·5 and 9·4 respectively. It would be worth while to inquire whether the small proportion of inquests held in Birmingham has any connexion with the high rate of uncertified causes of death, or whether the high proportion of inquests (9·4 per cent.) held in Birkenhead has directly or indirectly any effect on the proportion of uncertified causes of death in that town, which was only 0·5 per cent. in 1892. It may further be pointed out that in each of the several towns mentioned above in which the highest proportions of inquest cases were recorded—namely, from 7·8 to 9·4 per cent.—the percentage of uncertified deaths was low and ranged from 0·5 to 2·0; whereas, on the other hand, with the single exception of Burnley, excessive proportions of uncertified deaths, ranging from 2·8 to 5·3, were recorded in each of the towns in which the proportion of inquest cases was abnormally low and below 4 per cent.

The varying proportion of uncertified causes of death in Birmingham appears to afford conclusive evidence of the reality of the relation between uncertified deaths and inquests. The proportion of inquests held in Birmingham was until quite recently exceptionally high, even for a large town; it averaged, indeed, 8·9 per cent. during the eight years 1881-88. The highest percentage was 9·6 in 1886, since which the proportion has shown a remarkable and comparatively steady decline, and had fallen to 3·5 in 1892, a percentage which was little more than a third of that which prevailed six years before, in 1886. Concurrently with this marked decline in the proportion of inquests the percentage of uncertified deaths in Birmingham has shown an equally remarkable increase. The proportion of uncertified deaths in

large towns was first published in the Registrar-General's returns in 1882, and it should be noted that, speaking generally, there has been a steady decline in the proportion of uncertified deaths during the past ten years. In Birmingham, however, the mean proportion, which was only 1·3 in the three years 1882–84, rose to 2·3 in the four years 1885–88 and to 3·4 in the following four years 1889–92. The relative proportions of inquests and uncertified deaths in each of the last four years forcibly suggest that in Birmingham, at any rate, the proportion of uncertified deaths is in inverse ratio to that of inquests :—

Year.	Percentage of Inquests.	Percentage of Uncertified deaths.
1889	8·4	2·4
1890	6·9	3·0
1891	7·3	2·8
1892	3·5	5·3

Moreover, it should be noted that according to the Registrar-General's last Quarterly Return, recently issued, the proportion of inquests in Birmingham in the first quarter of this year further fell to 2·9 per cent. and that of uncertified deaths further rose to 5·4 per cent. These figures undoubtedly call for the attention and consideration of the Select Committee of the House of Commons now investigating the subject of the certification of deaths, under the presidency of Sir Walter Foster.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.

THE annual general meeting of this association was held in the rooms of the Medical Society, Chandos-street, on May 26th, the President (Dr. W. Howship Dickinson) in the chair. The following gentlemen were elected as officers for the year 1893–94 :—President : Dr. Howship Dickinson. Vice-Presidents : Dr. Abercrombie, Dr. Brett, Dr. Fuller, Brigade-Surgeon Clarke, Mr. George Armstrong, Dr. Adams Clarke, and Mr. Shirley Murphy. Treasurer : Mr. Noble Smith. Hon. Secretaries : Dr. Alder-Smith and Dr. Charles Shelly. New Members of Council : Sir Andrew Clark, Bart., Dr. G. Briggs, Mr. E. Hosking, and Dr. Murray. The following addition to Rule V. was then proposed and carried unanimously : "That past Presidents be included in the list of officers." The audited accounts showed a balance in hand of £142 15*s.* 2*d.* A suggestion was made that a prize or medal should be offered for the best essay on some subject connected with the education of youth and that the association should publish a volume of the transactions of its proceedings. It was also unanimously resolved that there should be conveyed to the senior honorary secretary (Dr. Alder Smith) an expression of the sincere sympathy of the members of the association with him in his recent bereavement. Votes of thanks were accorded to the honorary secretaries and to the auditors for their services to the association during the past year.

The President then delivered an address reviewing the origin, development and past work of the association, and called upon Mr. G. Armstrong (Wellington College) to open the discussion on compulsory games and the responsibility of medical officers of schools in respect to them.

Mr. Armstrong contended that, as a broad rule, all school games should be "compulsory," since—whilst most boys will play voluntarily—there is in every school a certain small percentage of boys who, if left to themselves in this matter, will surely "lonf," with many and far-reaching evil results to themselves and others. At the time of his entrance into the school each boy should be examined by the medical officer with all the thorough and minute care which would be devoted to a case of life insurance. Many parents, and not a few family practitioners, had an unreasonable dread of school games, founded on their ignorance or misconception of the way in which they are really carried on. Mr. Armstrong admitted the real difficulty presented by the case of delicate boys who were obviously unfitted for very active or sustained exertion. He traversed the statement recently made by an eminent authority to the effect that practically no measures are taken to grade schoolboys in relation to their physical exercises when he said that "what may be most suitable for the age of nineteen is most inappropriate for the age of thirteen. In none of our public schools are these few simple but most important points sufficiently recognised, for rarely are boys sized for their games unless the game renders it imperative." Referring to what is known as the Rugby case, Mr. Armstrong said that disintegration of the blood in cases of death from over-exertion was a fact long known in the kitchen. Every cook was aware that a hare which had been hunted decomposed more quickly than one that had been shot ; but as this condition obtained in animals which had died from extraneous and accidental causes during exertion actively carried on, and from which, if not thus accidentally killed, they quickly recovered, it did not follow that such a condition of the blood, when discovered, was the cause of death.

In the course of the discussion which followed several members testified to the care which is exercised at their own schools in classifying the pupils with regard to their physical ability for the exertion demanded of them in the various school games and contended that Dr. Dukes's recent utterances on this point could not be corroborated by an examination of the actual facts. It was recognised that school games must be compulsory for all boys capable of taking part in them.

Dr. Fyffe of Clifton and other speakers were emphatically of opinion that paper-chases should be compulsory ; there was a time of year during which no other recognised form of game quite took their place, whilst there was no real difficulty in so regulating them as to deprive them of the special risks with which it is the fashion to credit them. Owing to the increased care which has for some years past been given to the physical welfare of the pupils, many more delicate boys were now sent to public schools than formerly. The standard of physical training in the school could not be reduced to their level, and the difficulty of providing them with sufficient and proper exercise formed a problem of increasing perplexity to the school authorities. There were certain out-door pursuits—including many branches of natural history—which to some extent filled the gap ; but it was requisite that proper supervision should be exercised. Other speakers attested the excellent results which followed the making of games compulsory upon both boys and girls in parochial schools, in connexion with which "the difficulties traceable to the anxious parent, the family doctor and the London consultant are conspicuous by their absence."

The meeting closed with the usual votes of thanks. Several members and friends subsequently dined together.

THE LEVÉE.

ON Monday last, May 29th, a Levée was held on behalf of Her Majesty the Queen by His Royal Highness the Prince of Wales, K.G. Amongst the presentations to his Royal Highness were the following members of the medical profession : Surgeon-Lieutenant H. A. Berryman, Army Medical Staff, by the Deputy-Adjutant-General ; Sir Frederic Bateman, M.D., LL.D., by the Duke of Norfolk, K.G. ; Surgeon-Colonel A. Churchill, Army Medical Staff, on promotion, by the Deputy-Adjutant-General ; Surgeon-Captain W. J. Harnett, 22nd Middlesex Rifle Volunteers, by Colonel Alt ; Deputy-Surgeon-General Charles Moore Jessop, Army Medical Department, by Lieutenant-General Montgomery-Moore ; Surgeon-Lieutenant Bell Willmott Longhurst, Army Medical Staff, by the Deputy-Adjutant-General ; Surgeon-Lieutenant Thellwall Maurice, Royal Wilts Yeomanry Cavalry, by the Marquis of Bath ; Surgeon-Major Watts Parkinson, 1st Volunteer Battalion, Dorset Regiment, by Colonel R. Williams ; Surgeon-Lieutenant-Colonel Charles Arthur Patten, 2nd Volunteer Battalion Middlesex Regiment (Duke of Cambridge's Own), by Colonel Brodie Clarke ; Surgeon-Lieutenant Charles Edward Pollock, Army Medical Staff, by the Deputy-Adjutant-General ; Surgeon-Colonel William Howland Roberts, M.D., Indian Civil Service, by the Secretary of State ; Surgeon-Captain James More Reid, Army Medical Staff, by the Deputy-Adjutant-General ; Surgeon-Major-General J. Rudd, Army Medical Staff, by His Royal Highness the Duke of Connaught ; Mr. Richard Sisley, M.D., by Sir Joseph Fayrer, M.D., F.R.S. ; Surgeon-General Sir Benjamin Simpson, Indian Medical Service (retired), by General Lord Roberts ; and Surgeon-Captain John T. Thomas, 1st Monmouthshire Artillery Volunteers, by the Duke of Beaufort.

The following members of the profession also attended the

Levée: Sir Joseph Fayrer; Mr. A. E. Durham, Dr. Champneys, Dr. W. F. B. Dalzel, Dr. R. Gooding, Dr. J. Jackson, Dr. Maclagan, Dr. Stephen Mackenzie, Dr. W. Knowsley Sibley, Dr. H. J. Strong, Dr. W. Bezly Thorne, and Dr. H. C. Woods.

THE ROYAL MILITARY TOURNAMENT.

COLONEL TULLY, the secretary of the Royal Military Tournament, and his staff are again to be congratulated on the excellence of the arrangements by which they have secured for the British public another opportunity of witnessing a tournament at once popular, instructive and successful. As might have been confidently expected at an entertainment combining these three qualities, the public interest was proved by the vast mass of people who were present in all parts of the building to witness the military pageant. The English are said to be a warlike, but not a military, nation like the French; but a military tournament, affording as it does illustrations of military manœuvres and feats of arms by some of the best trained troops in the world, is sure to prove attractive and elicit any latent military ardour that may be present.

On the occasion of the last tournament we had to direct the attention of the authorities to some important points connected with the overcrowding of the men, the imperfect ventilation of the building, and the want of adequate means of flushing waterclosets, and it was with much regret that we heard about a fortnight later of the occurrence of outbreaks of typhoid fever amongst the troops that had been on duty at the Agricultural Hall.

On the occasion of our visit last week we were pleased to notice that many important improvements in the sanitary arrangements of the building had been effected, the advantage of which was everywhere apparent to the senses—that of smell in particular. Considering the large number of people and the number of horses in the building, it is astonishing how little odour was perceived. Great precautions are taken in this respect in the way of cleaning out the stalls in which the horses are stabled and in regard to the cleanliness and aeration of the peat moss which forms the litter. The stabling for the horses is of the most cleanly description and the litter is removed three times a day.

Many improvements have, no doubt, been made in the ventilation of the building, but where such a concourse of people is concerned it seems worth the consideration of the committee whether some artificial means of ventilation should not be provided in order to change the air of the building from time to time by pumping out the used-up air and renewing it with a supply of fresh air. This is the more necessary when it is remembered that the soldiers on duty to the number of at least 200 have to sleep in an atmosphere which has been defiled by the many thousands of people who have crowded into the building during the day. Last year we found soldiers sleeping in tents within the building, but this year this objectionable practice has been stopped. It was pointed out to us that the tents formed part of the exhibition and were there for spectacular effect and not for occupation.

Perhaps one of the most important points requiring the attention of the committee is the entrance to the arena—at least so it seemed to us. The entrance admits only three horses abreast, and a crowd of spectators is usually congregated around it. It only requires a slight error of judgment on the part of the Royal Artillery drivers or a more than ordinarily fractious or frightened horse to cause an accident at this point which would bring the matter forcibly before the attention of the committee and the public.

Another point of hygienic importance which calls for attention is the flooring, which here and there is cracked and indented. These cracks afford a suitable harbour for dirt and animal refuse below the floor, and this cannot be considered wholesome.

The lavatory accommodation is ample and the drinking water is supplied from a separate tank in the tower.

The medical work is under the care of Surgeon Tyrrell, Army Medical Service, Surgeon-Captain Lawless, M.D., 4th V.B., and Surgeon-Lieutenant Bray, Army Medical Service. Veterinary Major Wilson, Army Veterinary Department, from Aldershot, has charge of the horses.

The ambulance arrangements consist of a miniature station hospital with its equipment, together with a surgeon and assistant surgeon and staff of men from the depôt at Aldershot. The medical officers are assisted by Miss Edith Ward of St. Mary's Hospital and Miss Luischen Ward of the Royal Infirmary, Edinburgh; Sister Murray from the Canterbury Cavalry Hospital was also in attendance.

The accidents which have occurred since the beginning of the tournament have not been of a serious nature. On Friday of last week the first case occurred in a trooper of the Berkshire Yeomanry, who fractured his tibia whilst jumping in the arena in the morning. The horse cleared the jump, but swerved, and jammed the rider's leg against the barrier, causing an oblique fracture of the tibia. The trooper was removed to Wallingford and is doing well. On the same day one of the Suffolk Yeomanry was thrown from his horse and sustained a fracture of the acromial end of the left clavicle. He also was sent home and is said to be progressing favourably. On Saturday a sergeant of the 17th Lancers, during the regimental display in which the horses lie down on the ground, was rolled upon by his horse and sustained a severe contusion of the leg which resulted in acute synovitis.

The most numerous of all injuries are contusions and bruises of the hands amongst the Sappers and Miners during the process of bridgemaking. A driver of the Sussex Artillery was kicked in the abdomen whilst grooming his horse and was carried in a collapsed state to the hospital where he remained for about an hour; after treatment the medical officers considered him sufficiently improved to allow him to ride in the next competition, thus saving the gun from being disqualified. He has suffered no ill consequences.

The most serious and noteworthy accident occurred on Monday to Corporal Harvey of the 2nd Life Guards, who, whilst circling in the musical ride, was kicked by another trooper's horse. The kick fractured his tibia, but, instead of falling out of the line, the rider went on to the end of the entertainment, which lasted for about a quarter of an hour. Had he fallen out at the time the whole ride would have been thrown into confusion. The action of the injured trooper in continuing the drill in spite of his suffering cannot but compel admiration as an example of fortitude and of the qualities which have always characterised the British soldier in the field. At the same time we cannot help feeling that it would have been better for him to have fallen out of the ranks even at the cost of deranging the programme and damping the pleasure of the spectators, which are small matters compared with the difference in gravity to the injured man of a compound and a simple fracture of the leg.

The arrangements for accidents occurring amongst the civil part of the audience are exactly the same as they were last year. All the properties required for the fitting up of these stations have been supplied by Messrs. Evans and Wormull, of Stamford-street.

CHOLERA.

Two deaths from choleraic diarrhœa are reported to have occurred at Toulouse and fears have arisen as to the spread of the disease in Southern France. It was stated at a meeting of the Sanitary Board in Paris on the 30th ult. that forty choleraic cases had occurred since May 15th in the Department of Morbihan, twenty-three of which terminated fatally, and that an outbreak had also taken place in Finistère and the Vendée which had, however, terminated, no deaths having occurred since May 12th.

The Spanish Government have imposed a quarantine of five days on all vessels arriving from Cette, in consequence of the Spanish Consuls in France having reported the existence of cholera in the neighbourhood of Cette.

A sporadic case of cholera occurred last week in Hamburg. It appears that an office messenger who had been suffering from slight diarrhœa for several days was on Saturday last seized with the symptoms of Asiatic cholera, of which he died the same day. The nature of the disease was verified by the results of bacteriological examination. No cases have since occurred.

M. Haffkine is successfully prosecuting in India his method of inoculating for cholera. At Jhansi he inoculated a number of officers and men belonging to the

Royal Artillery and Infantry, in addition to men of the 45th Sikhs and railway *employés*. Between April 5th and May 1st M. Haffkine performed 850 inoculations. The Indian papers favour the view that the Government and private individuals should, as far as possible, aid him in testing the efficacy of his method by direct experiment. This is not so easy a matter, however, as it appears at first sight, for it will be necessary to inoculate a large number of persons living in community and under the same sanitary conditions, and then to observe the effect of an epidemic on those who have and have not been inoculated respectively. If cholera attacks the former class the positive result will afford strong evidence of the inefficacy of his protective process against cholera, whereas it will not necessarily follow, if the inoculated are not attacked, that this result is to be attributed to their having been protected by the operation beforehand, unless the experiment has been upon such a scale or, what amounts to the same thing, unless it has been followed in so many instances with a similar result as to justify a generalisation to that effect. Allowance has to be made for the fact that a large number of persons always escape being attacked in an epidemic of cholera, notwithstanding that they may be living under apparently the same conditions as those attacked, and it is not always easy to account for their immunity under such circumstances. Where such coincidences are of frequent occurrence it is difficult to find the real cause, but everyone will rejoice, of course, if direct and demonstrative proofs can be obtained of the efficacy of M. Haffkine's method of protection against cholera, and India unquestionably offers opportunities in this respect, which cannot be obtained elsewhere of deciding the point.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5656 births and 3464 deaths were registered during the week ending May 27th. The annual rate of mortality in these towns, which had been 18·6 and 18·9 per 1000 in the preceding two weeks, declined again last week to 17·5. In London the rate was 17·7 per 1000, whilst it averaged 17·4 in the thirty-two provincial towns. The lowest rates in these towns were 9·3 in Brighton, 11·5 in Oldham, 12·0 in Croydon and 12·5 in Norwich; the highest rates were 20·2 in Blackburn, 20·5 in Sheffield, 22·5 in Newcastle-upon-Tyne, 22·7 in Liverpool and 23·3 in Swansea. The 3464 deaths included 433 which were referred to the principal zymotic diseases, against 435 and 487 in the preceding two weeks; of these, 113 resulted from measles, 88 from whooping-cough, 66 from diarrhœa, 61 from diphtheria, 49 from scarlet fever, 31 from small-pox and 25 from "fever" (principally enteric). No fatal case of any of these diseases occurred last week in Wolverhampton; in the other towns they caused the lowest rates in Brighton, Norwich, Burnley and Swansea, and the highest rates in Gateshead, Leeds, Newcastle-upon-Tyne, Preston and Leicester. The greatest mortality from measles occurred in Cardiff, Plymouth, Manchester, Leeds, Preston, Gateshead and Newcastle-upon-Tyne; from scarlet fever in Derby; and from whooping-cough in Birkenhead and Leicester. The mortality from "fever" showed no marked excess in any of the large towns. The 61 deaths from diphtheria included 41 in London, 4 in Manchester, 3 in Salford and 3 in Croydon. Sixteen fatal cases of small-pox were registered in London, 5 in Oldham, 2 in Birmingham, 2 in Bradford and 1 each in West Ham, Salford, Burnley, Blackburn, Halifax and Hull; 560 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, against 531, 570 and 566 on the preceding three Saturdays; 111 cases were admitted during the week, against 126 and 113 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2493, against 2162, 2282 and 2345 on the preceding three Saturdays; 301 new cases were admitted during the week, against 346 and 370 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 304 in each of the preceding two weeks, fell to 268 last week and were 46 below the corrected average. The causes of 69, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Nottingham, Cardiff and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Brighton, Bristol, Birmingham, Salford and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·7 and 21·9 per 1000 in the preceding two weeks, declined again to 20·3 during the week ending May 27th, but exceeded by 2·8 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·0 in Perth and 12·8 in Paisley to 23·2 in Glasgow and 26·5 in Greenock. The 572 deaths in these towns included 42 which were referred to measles, 25 to whooping-cough, 9 to diarrhœa, 6 to scarlet fever, 5 to diphtheria, 4 to "fever," and 2 to small-pox. In all, 93 deaths resulted from these principal zymotic diseases, against 108 and 107 in the preceding two weeks. These 93 deaths were equal to an annual rate of 3·3 per 1000, which exceeded by 1·1 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 47 and 51 in the preceding two weeks, declined to 42 last week, of which 30 occurred in Glasgow and 7 in Greenock. The deaths from whooping-cough, which had declined from 29 to 23 in the preceding three weeks, were 25 last week and included 19 in Glasgow and 3 in Edinburgh. The 6 fatal cases of scarlet fever showed a decline of 2 from the number in the preceding week and included 5 in Glasgow. The deaths referred to diphtheria, which had been 7 and 5 in the preceding two weeks, were again 5 last week, of which 2 occurred in Glasgow and 2 in Leith. The 4 fatal cases of "fever" also corresponded with the number in the preceding week and included 2 in Dundee and 2 in Glasgow. The deaths referred to diseases of the respiratory organs in London, which had been 105 and 122 in the preceding two weeks, declined to 95 last week, and were 25 below the number in the corresponding period of last year. The causes of 48, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 22·2 to 26·7 per 1000 in the preceding three weeks, declined again to 25·1 during the week ending May 27th. During the first eight weeks of the current quarter the death-rate in the city averaged 25·6 per 1000, against 19·2 in London and 17·9 in Edinburgh. The 168 deaths in Dublin during the week under notice showed a decline of 11 from the number in the preceding week and included 15 which were referred to the principal zymotic diseases, against 22 and 15 in the preceding two weeks. Of these, 5 resulted from measles, 5 from whooping-cough, 3 from "fever," 2 from scarlet fever and not one either from small-pox, diphtheria or diarrhœa. These 15 deaths were equal to an annual rate of 2·2 per 1000, the zymotic death-rate during the same period being 2·4 in London and 1·6 in Edinburgh. The fatal cases of measles, which had been 4 and 2 in the preceding two weeks, rose to 5 last week, a higher number than in any week during the current year. The 5 fatal cases of whooping-cough exceeded by 2 the number in the previous week. The deaths referred to different forms of "fever," which had increased from 2 to 8 in the preceding four weeks, declined again to 3 last week. The 168 deaths registered in Dublin last week included 28 of infants under one year of age and 33 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in recent weeks. Five inquest cases and 2 deaths from violence were registered; and 60, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 7 per cent., of the deaths registered in the city last week were not certified.

THE SERVICES.

MOVEMENTS IN THE MEDICAL STAFF.

PROFESSOR J. LANE NOTTER left Netley on Saturday, May 27th, for Chicago to attend the Sanitary Congress under the auspices of the World's Fair Auxiliary. Surgeon-

Captain G. T. H. Thomas, A.M.S., stationed at Portsmouth, has been ordered to the Royal Victoria Hospital, Netley, for temporary duty. Surgeon-Lieutenant-Colonel Bennett has been placed in Medical Charge of the camp at Cirencester. Surgeon-Major Ring has taken over charge of the Station Hospital, Belfast, during the absence on sick leave of Brigade-Surgeon-Lieutenant-Colonel Howard. Surgeon-Major Gallwey, Principal Medical Officer, Egyptian Army, has arrived in England on leave. Surgeon-Majors Hughes and Jennings have arrived from India on leave. Surgeon-Captain Josling has arrived on the West Coast of Africa for a tour of duty. Surgeon-Captain Wilson has reported himself for duty at Woolwich and Surgeon-Captain Buchanan at Belfast. Surgeon-Captain Saw has joined the North-Western District. Surgeon-Captain Wilson has been transferred from Lichfield to Wrexham. Surgeon-Lieutenant Morgan has been moved from Devonport to Aldershot. Surgeon-Captain Way has arrived from India on medical certificate. The death of Surgeon-Major Bolster, retired pay, lately in charge of the Station Hospital, Ipswich, is announced.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Henry C. Guinness retires on retired pay (dated May 31st, 1893).

INDIA AND THE INDIAN MEDICAL SERVICE.

The following appointments are announced:—Brigade-Surgeon-Lieutenant-Colonel F. H. Blenkinsop, I.M.S., District Surgeon, Trichinopoly, to be Principal Medical Officer, Myingyan District. Surgeon-Major H. Hamilton, M.D., I.M.S., (Bengal), Officiating Medical Officer 5th Bengal Cavalry, to the Medical Charge of the Bundelkund Political Agency, in addition to his military duties. Surgeon-Captain A. G. Hendley, Civil Surgeon of Seoni, to the Medical and Executive Charge of the Seoni Gaol. Surgeon-Captain T. W. Stewart to be Civil Surgeon of Minbu. Surgeon-Captain H. M. Morris to be Civil Surgeon of Meiktila. Surgeon-Major G. A. Emerson, Civil Surgeon, is transferred from Bara Banki to Bareilly. The services of Surgeon-Major J. A. Cunningham, Civil Surgeon, Lahore, are placed at the disposal of the Government of India in the Home Department, and the services of Surgeon-Captain H. J. Dyson, Deputy Sanitary Commissioner, Punjab, are placed temporarily at the disposal of the Government of India in the same department. Surgeon-Lieutenant-Colonel W. Center, M.B., and Surgeon-Colonel G. Thomson, M.B., have respectively made over and assumed charge of the office of Deputy Surgeon-General, Central Provinces. Surgeon-Major J. S. Wilkins, D.S.O., and Surgeon-Lieutenant-Colonel P. Murphy, M.D., have respectively delivered over and received charge of the Office of the Deputy Sanitary Commissioner, Western Registration District. Surgeon-Lieutenant-Colonel C. T. Peters, M.B., I.M.S., is promoted to Brigade-Surgeon-Lieutenant-Colonel, vice Brigade-Surgeon-Lieutenant-Colonel R. Bowman, promoted to Surgeon-Colonel. Honorary Surgeon J. C. Ellis, Bengal, retires from the service. A Good Service Pension has been conferred upon Surgeon-Colonel C. P. Costello, I.M.S., Bengal, in place of Surgeon-Colonel J. C. Morice, Indian Medical Department, retired with the special additional pension of £250.

NAVAL MEDICAL SERVICE.

Surgeon Charles S. Woodwright to the *Wildfire*, additional.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain George F. England, 2nd Volunteer Battalion, the Lincolnshire Regiment, to be Surgeon-Major, and Surgeon-Lieutenant William Creswell, M.D., 2nd Volunteer Battalion, the Royal Warwickshire Regiment, to be Surgeon-Lieutenant (both dated May 31st, 1893).

VOLUNTEER CORPS.

Rifle: 1st (Brecknockshire) Volunteer Battalion, the South Wales Borderers: David Thomas, M.D., to be Surgeon-Lieutenant (dated May 27th, 1893).—4th Volunteer Battalion, the Essex Regimen: Captain H. T. Challis is appointed Surgeon-Lieutenant (dated May 27th, 1893).

INDIAN FEVERS.

THE *Pioneer Mail* recently published an article in which it called attention to the necessity which exists for a systematic investigation into the nature and causes of the different forms of fever that are prevalent in India. The finding of the enteric fever bacillus in some cases of Indian fever proves that the same enteric fever occurs in India as in Europe. But, as the Sanitary Commissioner with the Government of India remarks, the anomalous clinical and pathological character of many Indian fevers raises the suspicion that much still remains to be done in the way of differentiation. What is the exact nature of the fever or fevers of which the natives of India die in such vast numbers according to the mortality tables of that country? How are cases of remittent or continued fever—other than enteric fever—to be differentiated from one another? What is the exact nature of the enteric fever which prevails so extensively amongst young soldiers and Europeans soon after their arrival in that country? Is it clinically and pathologically identical in all respects with that which prevails in Europe and, most important of all, does it depend upon causes which are identically the same in both countries? These are points which require to be thoroughly threshed out by patient and exhaustive scientific investigation, conducted with all the aids of modern research by those who have been specially trained in the prosecution of such inquiries.

THE INDIAN CURRENCY QUESTION.

We need offer no apologies for reverting to this subject, for it seriously affects a large number of medical and other officers serving in India at the present time. They will be glad to learn, on the authority of the Press Association, that Lord Herschell's Committee have now practically completed their labours and their report. Differences of opinion which existed amongst the committee have, it is understood, been so far overcome that they will all be able to sign one report. Such practical recommendations as the committee may make will be considered by the Cabinet and communicated in due course to the Executive in India.

THE UNREADINESS OF THE ARMY MEDICAL SERVICE FOR WAR.

Our service contemporary, the *Army and Navy Gazette*, last week contained a long communication calling attention to a subject which has been previously adverted to in the columns of THE LANCET. The writer of the communication in question states that the Army Medical Service is threatened with a breakdown in any future campaign, owing to the want of a practical acquaintance on the part of medical officers with the organisation and field hospital equipment of their branch of the service. He alleges that medical officers never see field hospitals, and that they can only learn from reading the printed lists in the medical regulations what they do and do not contain. During peace the medical service never sees the field equipment, nor is it exercised in any of those things which are rightly regarded nowadays as essential requirements in modern warfare. He also adds that the men of the Medical Staff Corps are not physically strong enough to undertake the fatiguing labour of carrying wounded men, that bearer companies are never mobilised in peace in any large garrison, and that no one knows anything about getting a field hospital into working order in time of war, for the simple reason that they never see it in time of peace and know nothing about a war equipment. There cannot, we think, be any doubt about the necessity of medical officers and the medical service generally being thoroughly acquainted with everything they will have to use on war service; and opportunities should be afforded them for this purpose at our large camps and during military manœuvres, which should be for the training of the Army as a whole and for every branch of it. The efficient organisation and administration of a medical service in war is an extremely difficult matter, and it cannot be accomplished unless every man knows his place and is in it at such times, and is also practically acquainted with all the duties he will be called upon to fulfil when there. We publish in another column a letter from a correspondent dealing amongst other matters with the subject on which we have commented above.

MEDICAL DEFENCE UNION, LIMITED.—The usual fortnightly meeting of the Council of the Medical Defence Union was held at the rooms of the British Medical Association, on Wednesday, May 24th, 1893, at four o'clock P.M., Mr. Victor Horsley in the chair. Sixteen applications for membership were accepted. A report of the Finance Committee was presented which showed that the present financial position of the Union was satisfactory and that there was every probability that the whole of the debit balance with which the year began, as well as the ordinary expenses of the year, would be paid out of the current year's revenue. The other business transacted consisted in the appointment of a permanent Finance Committee and the consideration of various applications for assistance.

Correspondence.

"Audi alteram partem."

"COLLISIONS BETWEEN GENERAL PRACTITIONERS AND MEDICAL OFFICERS OF HEALTH."

To the Editors of THE LANCET.

SIRS,—I am exceedingly obliged to you for the prominence you have given to the subject of "Collisions between General Practitioners and Medical Officers of Health," and I should be further obliged if you will permit me to point out the errors in Mr. Fovargue's communication to THE LANCET of May 27th, where he endeavours to justify the proceedings of the Eastbourne sanitary authority, to which he is the official clerk. Mr. Fovargue is entirely in error in supposing that the abstract of the proceedings published in THE LANCET of May 6th was made by me, or that I am responsible for the heading he regards with disfavour. If Mr. Fovargue will read THE LANCET more carefully he will then see that the subject matter of your abstract is both fair and impartial and corresponds in spirit and letter with the reports and letter in the local journals I forwarded to you, as stated in my letter published in THE LANCET of May 6th. If it is any satisfaction to Mr. Fovargue to know the particular local journals sent for your information I have no objection to tell him that the report of the proceedings in the two copies of the *Eastbourne Gazette* and a letter from the *Eastbourne Observer* written by the father of the now deceased child, which did not appear in the *Eastbourne Gazette*, were sent to you. As far as I can judge these local journals gave the necessary information from which your own abstract was made, I presume, by some member of your staff, which Mr. Fovargue characterises as incomplete and inaccurate and remarkable for its omissions, but which I think entirely fair, though, like the journals from which it was abstracted, in no way favouring me.

Mr. Fovargue's first contention is that, as Dr. Dudfield pronounced the boy to be still desquamating at the end of the thirteenth week he was still a person suffering from a dangerous infectious malady in the eyes of the law. Dr. Dudfield only examined the patient this once and in his evidence admitted that he did not try to remove this supposed desquamation, but left it for me to see and also admitted that he might have made a mistake. I examined the patient within an hour of this time and wiped away from behind the ears with the corner of a towel moistened with carbolised water what I regarded as simply a little dried soap and dirt remaining there from inadequate cleanliness. I could find no other semblance of any desquamation proper. Mr. Holman, the medical man in attendance, had written a week before that the patient had finished desquamation and was fit to be removed, and his partner held the same opinion. Dr. Newsholme of Brighton simply assumed that there was desquamation and so stated in evidence; yet Mr. Fovargue asserts that there was no conflict of medical evidence. So much then for the value of this assertion.

Mr. Fovargue's second contention is that the patient was removed straight from the fever ward without any precautions whatever. If Mr. Fovargue will refer to his minutes of the evidence he will find that the boy was taken out of the fever ward (the nurse assuring me that he had been regularly anointed with disinfectants), and was stripped of all clothing in the room always used for this purpose, which she described as being "the kitchen." He was dressed there in fresh clothing from head to foot, all of which had been disinfected at the Eastbourne sanatorium. It is therefore not true to say that no precautions whatever were taken. The only way in which my precautions fell short of usage at the Eastbourne sanatorium was that I did not allow the patient to have a bath. Mr. Holman stated in evidence that he had discontinued baths because they might be dangerous owing to the boy's endocarditis, which in the evidence was admitted might have been fatal to him. In bringing the child home I put the matter of infectiveness to the test of direct and exact experiment, which shatters utterly Mr. Fovargue's legal argument, for, notwithstanding all that may be said, the patient failed to communicate the disease to the members of his family, eight in number, from the age of thirteen upwards, and therefore he could not have been suffering from a dangerous infectious disease (scarlet fever), which Mr. Fovargue endeavours to prove he was. Circumstances have resolved the case into the superior and reliable proofs of medical practice as compared with the faulty methods of legal evidence.

I am, Sirs, yours obediently,

J. G. BARFORD.

P.S.—Since writing the above I have received a letter from the aunt of the boy, whose adopted child he was, in which the following words occur: "I absolutely and entirely deny Mr. Fovargue's cruel statement that my nephew's death was in any way hastened by his journey from Eastbourne.....The Eastbourne sanitary authority has inflicted great suffering on me as well as on the boy's father by excluding us from him and seems now determined to aggravate and prolong it..... Our one object was to get him home, and this at last was accomplished through your kindness. I do not wish to blame anybody now the poor boy has gone, neither does his father; but I shall never cease regretting that he was sent into the sanatorium, without either my knowledge or consent or that of his father."

To the Editors of THE LANCET.

SIRS,—My attention has been called to a letter of Mr. Fovargue, the town clerk of Eastbourne, published in THE LANCET of May 27th, with reference to the case of Dudfield *v.* Barford. Mr. Fovargue has taken the somewhat unusual course of writing to the press on the merits of a case in which he was professionally engaged, and as he has cast aspersions upon Mr. Barford, for whom I appeared as counsel, I think it only just to my client to write a reply which his letter has provoked. Mr. Fovargue charges Mr. Barford with having furnished THE LANCET with a report of the case "not only very incomplete and inaccurate, but remarkable for its omissions," and throws doubt upon the possibility of the existence of a report in any local paper from which the comments in your leading article of May 20th could have been based. It may satisfy Mr. Fovargue's curiosity to know that the *Eastbourne Gazette*, containing an almost verbatim report of the proceedings, was the paper sent to you by Mr. Barford. The inaccuracy of that report which Mr. Fovargue so readily assumes appears to be somewhat hasty when in the same sentence in which he makes the allegation he admits that he has neither seen the report nor is aware of the local paper containing it. In the first place, complaint is made of certain omissions of facts in your leading article, which Mr. Fovargue wrongly assumes to be omitted in the report of the *Eastbourne Gazette*. Two omissions only appear to be specified: (1) that a telegram sent by the patient's aunt to Dr. Dudfield was not set out in full; (2) that your leading article did not state that the patient was removed from the sanatorium without Dr. Dudfield's sanction. I will deal with each separately. The fact that the telegram sent by the patient's aunt was not set out in full appears to me to be absolutely immaterial to the questions to which your article was directed—namely, first, whether the lad Leonard Morres was likely to be suffering from scarlet fever thirteen weeks after his contraction of the disease and his admission into the Eastbourne sanatorium; secondly, whether it was a usual or proper course for Dr. Dudfield to institute, with the sanction of the Eastbourne Sanitary Committee, these proceedings against Mr. Barford when he knew that Mr. Holman, the medical practitioner in attendance on the case, and Mr. Holman's senior partner, also a duly qualified practitioner, supported Mr. Barford's opinion that the boy had finished desquamating and had recovered from scarlet fever. What has a telegram sent by that unfortunate lad's aunt to do with the solving of these questions? I presume it is wished to be suggested now for the first time that Mr. Barford removed the boy without authority, whereas in fact a subsequent telegram was sent on March 6th, the date of the boy's removal from the sanatorium, which is attached to the depositions now before me and which was admitted by the prosecution, in these words: "Have authorised Barford to bring Lennie home if he thinks fit." Surely Mr. Fovargue, by omitting this telegram in his letter, casts an unwarrantable aspersion upon my client and is guilty of that very offence of omission of which he now complains. The second omission complained of, that you did not in your leading article state that Dr. Dudfield refused to allow Mr. Barford to remove the boy is imaginary, for not only did you so state it, but stated also the specific reasons that Dr. Dudfield gave for his refusal. I think it is only fair to Mr. Barford to add the statement of the matron, who testified that Mr. Barford, after being informed of the withholding of Dr. Dudfield's sanction

to the removal of the boy, made a careful examination of the patient. "He took the boy's temperature," she says, "and examined him all over"; and again she says in her evidence, "he took a towel and rubbed behind the ears," a place where Dr. Dudfield asserted desquamation had not ceased. After that careful examination sworn to by the matron, Mr. Barford came to the conclusion that the boy had ceased desquamating and had recovered from scarlet fever. Mr. Holman, the practitioner in attendance, supported Mr. Barford's view, as also did Mr. Holman's partner, and thus of the four medical men who examined the boy three were of opinion that the boy had recovered from scarlet fever. Yet Dr. Dudfield, knowing that three medical men differed from him in opinion, thinks fit to bring criminal proceedings, with the sanction of the sanitary committee, against Mr. Barford. Whether or not such a prosecution is right or just I leave your readers to decide.

Mr. Fovargue also complains of additions in your leading article to what actually transpired in court, and boldly asserts that there was no conflict of medical evidence, whereas both Mr. Holman and his senior partner were of opinion that the boy had ceased desquamating and had recovered from scarlet fever. The following is Mr. Holman's letter of March 4th, a letter written a week previously to the boy's removal and attached to the depositions:

Hempstead House, Eastbourne, March 4th, 1893.

DEAR MADAM,—Your nephew, Leonard Morres, has just finished desquamating, and, as far as that goes, could travel home; but I do not think he ought to do so for another week or two on account of his heart trouble, for which I am still keeping him in bed. I think he could be moved quite safely to rooms in the town, but a journey to Wokingham would be attended with a great deal of risk in his present condition.

Yours truly,

HENRY J. HOLMAN.

Mr. Holman states in his evidence that he "examined the boy again for desquamation on March 7th" and "thought he had finished desquamating." He thought "he would have been passed by the medical officer any time during the week previous to his removal." Mr. Holman's partner and Mr. Barford were of the same opinion as Mr. Holman. Yet Mr. Fovargue boldly asserts that it is an addition to what actually transpired in court to say there was a conflict of medical evidence. Mr. Fovargue is entirely mistaken when he says that Mr. Barford had three weeks in which to appeal, the time being seven days. I strongly urged my client to appeal but pointed out the necessity and expense of expert witnesses. I hope and trust the case will be tried again in a different form before a higher tribunal, and I do not fear but that the question will be decided in favour of the general practitioners.

I am, Sirs, yours truly,

HUGH M. STURGES, Barrister-at-law.

4, Paper-buildings, Temple, E.C., May 30th, 1893.

To the Editors of THE LANCET.

SIRS,—Mr. Fovargue, as a leader of a forlorn hope, has shown considerable dexterity in nursing and marshalling his "other facts," which, however, are too weak to give much support to the views advocated by himself and his party. Nor is it surprising that one who can seriously advocate views which are inconsistent with the teachings of medical experience and practice should be unable to appreciate the sound reasoning of your very admirable leading article on the subject, a careful perusal of which is quite enough to settle the question to the satisfaction of any reasonable being. It may be perhaps of small importance to speculate as to how Dr. Dudfield could have allowed himself to write the note handed to Mr. Barford by the matron; but it is of considerable importance to bear in mind that if Mr. Barford had acted upon this note he would have placed Dr. Dudfield in the position of medical adviser of the family, whereas he himself occupied that position. Then because Mr. Barford (fully understanding his own position and that of Dr. Dudfield) did not act upon this note, but acted upon his own opinion and experience as a legally qualified practitioner and did his own work as the medical adviser of the family and saved Dr. Dudfield from the effects of his own indiscretion, he was actually prosecuted by the man who owed him gratitude "for removing his patient and for exposing him while suffering from scarlet fever." In the absence of grave legal and medical irregularities it is difficult to discover in these circumstances any valid ground upon which to base a genuine prosecution. If Mr. Barford had allowed Dr. Dudfield to act as the medical adviser of the family, which he was not, and had allowed himself to act as if he were not the medical adviser of the family, which he was, the patient would have remained in the sanatorium and there would have been no thoughts of a prosecution.

I am, Sirs, yours truly,

A POOR-LAW MEDICAL OFFICER.

London, W., May 30th, 1893.

CASE OF INCOMPLETE ABORTION.

To the Editors of THE LANCET.

SIRS,—I read with much interest the account of a case of the above nature in THE LANCET of May 27th. I had a very similar case myself about a fortnight ago. On March 9th I was called to see a woman forty years old, a multipara, who was suffering from rather severe hæmorrhage from the uterus. She could not say whether she was pregnant or not, but she had missed her last period. On examination the os seemed to be perfectly closed. Rest in bed and an opiate were prescribed and in a few days she was well enough for me to leave her. I heard nothing more of the case till May 9th, when I was told that she was still very poorly and that she had been losing blood more or less since my last visit. On May 10th I made another vaginal examination. The os would only admit the tip of my forefinger. The uterus was distinctly felt to be enlarged and readily movable. On passing the sound the length of the uterus was discovered to be three inches and a half. Nothing further was done till the next morning, when I was summoned at half-past seven, as she had had severe hæmorrhage during the night and was very weak. On examining the os I found it to be still in the same condition, with blood oozing freely from it. Anxious to check further bleeding, I injected $\frac{1}{100}$th grain of citrate of ergotinine into the right buttock and plugged the vagina with pledgets of cotton-wool dipped in glycerine. On returning to see her at twelve o'clock I removed the vaginal plug, found the os sufficiently dilated to admit my forefinger, and I discovered a soft spongy mass lying loose in the cavity of the uterus, which I at once diagnosed as retained placenta. It was very easily broken down and removed piece by piece, the uterus being afterwards well syringed out with Condy's fluid. The patient, though still anæmic, is making satisfactory progress.

I am, Sirs, yours truly,

J. LESLIE WATT, M.B. Aberd.

Millbrook, Plymouth, May 29th, 1893.

"SUPRA-PUBIC CYSTOTOMY."

To the Editors of THE LANCET.

SIRS,—Having noticed Mr. Lawson Tait's description of his operation for supra-pubic cystotomy, I may mention that I performed a somewhat similar one in 1889. The patient was a boy four or five years old, with a small stone in the bladder. I decided on performing the supra-pubic operation because by injecting the viscus its anterior wall can at that age be readily thrown forwards and distended over the pubes and the reflexion of the peritoneum pushed upwards, leaving a considerable portion uncovered. About two ounces and a half of warm boracic lotion were injected into the bladder through a silver catheter, which was kept in, touching the stone, the urine having been drawn off. It was not necessary to put a ring of elastic round the penis, the lotion being well retained. The rectum was not distended. An incision about three-quarters of an inch in length was made in the middle line just above the pubes, and by cutting carefully downwards the bladder was reached. This was drawn up with a tenaculum and seized with a pair of bow dressing forceps well below the reflexion of the peritoneum. An incision about three-quarters of an inch long was made from above downwards and an escape of the lotion showed that the viscus had been opened. It being necessary to slightly extend the incision, a cut was carefully made upwards, cutting on to the forceps. The stone was not felt by the insertion of the finger into the bladder for fear of tearing the peritoneum. The catheter being withdrawn the posterior wall of the bladder was tilted forward by the finger per rectum; the stone was seen near the wound and easily removed in its long axis with a pair of dressing forceps. There was practically no hæmorrhage during the operation. I did not suture the bladder; two stitches were applied at the upper extremity and middle of the abdominal incision and a rubber drainage-tube was inserted at the lower part, though not into the bladder. The urine was carefully drawn off with a soft catheter every few hours and the parts

were dressed antiseptically. Some urine escaped from the wound, but caused no appreciable irritation. Three days after the operation urine was passed naturally per urethram, rendering the catheter unnecessary. None appeared subquently at the wound. The abdominal incision was completely healed in three weeks. The temperature rose slightly after the operation and was never high.

I am, Sirs, yours truly,

HERBERT W. G. MACLEOD, M.B., M.C. Edin.,
Surgeon-Captain, late H.M. Bengal Army.

Victoria-square, Clifton, Bristol, May 29th, 1893.

ARMY FIELD HOSPITALS IN WAR.

To the Editors of THE LANCET.

SIRS,—Your sympathetic article in THE LANCET of the 20th inst. about the Army Medical Service has given much satisfaction. I beg to point out that the deputation which addressed the War Minister seems to me to have omitted some important matter. They made no reference to our utter ignorance of our field hospital equipment and working. These hospitals are packed away in the arsenals, are never mobilised except on the outbreak of war, and we know nothing of their good or bad points. The artillery batteries exist in peace, the engineer companies do the same, and the Army Service Corps simply expand their peace companies when war occurs. We have to begin *ab initio* with strange officers, strange men, strange equipment and strange transport. How can we help but fail? Neither gods nor men can succeed under such conditions. I have myself been hurried into the field and under fire with such scratch organisations, and I can never cease to protest against this "organisation of failure." All classes of society to whom the matter is explained are shocked at this condition of affairs and still we seem paralysed in carrying out the idea of a field hospital as ready for war as a field battery. With such hospitals at Aldershot, Woolwich, Portsmouth, Dublin and the Curragh how efficient we might become. If you can realise this hope for us you will do a real good to our service.

There is another burning point that needs discussion. I mean the increasing, never-ending changing of the Principal Medical Officer in districts in England. Anything to equal it does not exist in the army, and the Principal Medical Officers are practically non-existent. They come and they go, and where can efficiency be? The remainder of the military staff of a district stay for five years certain. Our chiefs are ever on the run to far-away colonies or Indian garrisons, and the home efficiency of the department is in jeopardy. It is monstrous to allow the Netley Principal Medical Officer to change every few months. We can hold no one responsible for the place, we can blame no one, praise no one, and do not know who is chief there, as perpetual change is the rule. The Sandhurst Governor stays seven years, the Woolwich Academy Governor does the same; likewise the Staff College Chief remains seven years. At Netley, where our young men are trained, an unceasing flow and ebb of Principal Medical Officers recur, and we do not know who controls the place or sees into the thoroughness of the teaching and the work. We seem ignorant of the first principle of administration, which is well-defined and localised and means personal responsibility of one man for one place or duty. Indian pay, Indian service and all the rest of it are valueless if the very foundations of our training and administrative teaching are being undermined by change, change, and never-ending change. The Director-General, who seems to be also Inspector-General of Hospitals in England, is busied with a mass of detail in London, but should he not be constantly on the move inspecting the districts? If he would decentralise the overburdened London office and throw on the districts part of the work that overweights the head-quarter offices, then he could see his department and know its working. None of these points were brought to notice by the recent deputation. I beg you will not ignore them. They lie deep down at the foundation of our efficiency, be it as Corps or Department.

I am, Sirs, yours truly,

May 23rd, 1893. N. D. F.

"THE MISTRAL AND THE RIVIERA."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 27th the reviewer of Dr. Linn's "Health Resorts of Europe" takes objection to the author's optimist view of the mistral and as a clenching argument asks him whether he never heard of the old Provençal "ditty"—

"Le Parlement, le mistral et la Durance
Sont les trois fléaux de la Provence."

But in what this "ditty" applies to the Riviera I am unable to see. Neither Cannes nor Nice formed part of "Provençal Parlement"; even in prehistoric times the Durance could never have damaged the Riviera; and the mistral, although it does occasionally blow on this coast, is not the *fléau* which is connected with Provence. From Oct. 1st, 1892, to May 28th, 1893—i.e., during eight months—we have had five days only during which the mistral has been at all felt. To call this a *fléau* is to use a very big word for a very small thing. Doubtless during that period in the old "Provence" it may have blown for many days and with great violence, but we are, fortunately, separated from the wind-swept region of Provence by several mountain ranges, and it is but comparatively seldom that the mistral reaches the Riviera itself.

I am, Sirs, yours truly,

Cannes, May 28th, 1893. H. BLANC, M.D., F.R.C.P.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Health of the City.

THE report of the medical officer of health, Dr. Hill, is elaborate and instructive. It is evidently compiled with much care and the special report as to the large infant mortality is suggestive. There is no doubt that the high situation of Birmingham and the amount of breathing space it possesses contribute largely to the low death-rate in comparison with other great towns. It was 20 per 1000 in 1892, which, it must be admitted was very moderate. When the infant mortality of this town is reviewed it will be seen that Birmingham shares the discredit attaching to the majority of large towns in respect of the large proportion of deaths at this early age. 169 per 1000 born is a lamentable ratio. The frequent want of adequate protection and general care, with injudicious feeding, is mainly responsible and still leaves much to be desired. In spite of philanthropic efforts and the attempts to spread an intelligent knowledge on these subjects there is still a huge amount of ignorance and indifference to be overcome before the mortality can be lessened.

Cruelty to Children.

As bearing upon the preceding remarks there has lately been some activity shown by the Society for the Prevention of Cruelty to Children in prosecutions directed against parents for neglect of the commonest instincts of humanity. In one instance a man and his wife were sent to gaol for a month for neglecting their children in 1892. This had a good effect on the husband, but the wife was lately charged again with the same offence and was committed to gaol for a period of two months. It is difficult to predict the future of children brought up, or rather allowed to exist, under such unfavourable conditions. The State suffers, whilst the benevolent public take the responsibility of prosecuting the parents and protecting the children.

Prevalence of Small-pox and Scarlet Fever.

The number of cases of small-pox still increases. At present there are 109 cases of small-pox and 236 cases of scarlet fever under treatment in the City Hospital. Medical officers of health in outlying districts are on the alert, and, in spite of all precautions, express their apprehension that there will be a considerable addition as time goes on.

Medical Benevolent Society.

The annual meeting of this Birmingham society was held on the 26th inst. under the presidency of Mr. Garner. The report, which was very satisfactory, showed that the invested funds amount to £11,736, and that there was a balance of £148 at the bank. The number of assistants is fifteen. The society numbers 330 members—a smaller number than there should be in proportion to the profession in the district. Various votes of thanks were passed and Dr. Wyer of Leamington was elected president for the ensuing year.

Singular Stabbing Cases.

The residents of the suburbs have been very much exercised in their minds by the presence at large of a supposed lunatic, whose sudden appearance here has created much alarm and some injury. Pouncing unexpectedly upon passing ladies he

has struck them with a large pin similar to those used by ladies in fastening their hats and has as rapidly disappeared. So far he has eluded pursuit, but the terror of several persons attacked at various times has given rise to much sensation. The police are actively engaged in the endeavour to arrest the individual and to allay the excitement caused by this singular mode of attack.

May 29th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The White Lead Commission.

THE Commission which was appointed by the Home Secretary to inquire into the white lead industry and which has been sitting in our city to take evidence, is at present in Glasgow, from whence it will proceed to Sheffield and Hull. The commission is composed of Mr. Henderson as chairman, Messrs. Camson and Gould, factory inspectors, Dr. Dupré and Dr. Oliver of Newcastle, as chemical and medical experts respectively, whilst Mr. J. H. Tennent of the Home Office is secretary. The work undertaken by this commission will be extensive and the inquiry exhaustive, and it is to be hoped that its investigations will tend to diminish the dangerous nature of this occupation.

Durham Mining District.

The report of Mr. Thomas Bell, H.M.'s Inspector of Mines for the Durham district, has been issued. He characterises the history of the coal trade in the county of Durham for 1892 as being one of strikes, disaster and disappointment; and he shows that the amount of coal raised in 1892 was several millions of tons less than it was in 1891. At the same time, the Durham district shows a decrease of 1987 persons employed in and about the mines. The report mentions the establishment by the Marchioness of Londonderry of an excellent nursing association at the Seaham and other collieries of the Marquis of Londonderry. The object of the association is to provide a body of trained and skilled nurses to nurse the sick and those who may receive any accident at their homes and to raise the standard of nursing by all means in their power.

The Epidemic of Measles at Brampton.

The epidemic of measles at Brampton, near Carlisle, is reported as being very serious; during the last week nine deaths have been reported. The mortality is principally amongst children of from two to five years of age. There is hardly a house in the town, where there are children, which has escaped.

The Water-supply of Penrith.

The Penrith local board, which for some time has been considering the water-supply of the town and has taken steps to procure an adequate supply, has lately received long reports from Mr. G. F. Deacon, the engineer, and Dr. Stevenson, analyst. The reports are most favourable. Dr. Stevenson speaks of some of the available sources for Penrith as possessing the highest degree of purity. The engineer says that one of the streams alone if tapped 1000 feet above the sea level would be more than abundant for Penrith in the longest recorded droughts without help, and if tapped high up it would rarely affect the apparent volume of the stream below.

Ambulance Work in the North.

Mr. C. Clark Burman of Alnwick, as gratuitous instructing surgeon of the railway *employés* at Alnmouth, at a public meeting held there, has received their thanks and a presentation.

Newcastle-on-Tyne, May 31st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Lord High Commissioner at the Hospitals.

HER MAJESTY'S representative at the General Assembly of the Church of Scotland this year has been the Marquis of Breadalbane. He and the Marchioness have, as is usual, paid State visits to the various hospitals and other philanthropic institutions—the Royal Infirmary, the Royal Hospital for Sick Children, the Hospital for Incurables, the Corstorphine and the City convalescent hospitals being amongst those visited.

Royal British Nurses' Association.

An inaugural meeting of the Scottish national branch of this association is to be held in Edinburgh on June 1st, at which it is expected Her Royal Highness Princess Christian will preside. The scope and aims of this association have not been made sufficiently known to the medical men of the city to ensure their hearty coöperation, neither has it been made sufficiently clear that the Scottish branch is to have that complete and satisfactory autonomy which the bulk of the profession consider absolutely essential to their cordial participation in the scheme. It is hoped that this unwise negligence on the part of those responsible for the arrangements may be efficiently counteracted by prompt action now.

May 31st.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

SIR CHARLES CAMERON will be opposed for the secretaryship of the College by Mr. Wheeler. For the Council there are twenty-six candidates for nineteen vacancies. The following are the candidates who were not members of the outgoing Council: Mr. J. K. Barton, surgeon to the Adelaide Hospital; Mr. Swan, surgeon to the Orthopædic Hospital; Mr. Montgomery Ward, surgeon to Mercer's Hospital; Dr. R. Purefoy; Dr. John Cranny; Mr. Coppinger, surgeon to the Mater Misericordiæ Hospital; Mr. E. Thompson, surgeon to the Tyrone Infirmary; and Mr. John Lentaigne, surgeon to the Mater Misericordiæ Hospital. The elections will be held on Monday, the 5th inst.

Small-pox.

The question as to the possibility of this disease invading Dublin has for some time past exercised the attention of the Public Health Committee. Sir C. Cameron, Medical Superintendent Officer of Health, and Mr. Stafford, Inspector to the Local Government Board, have had consultations as to the desirability of issuing a circular advising re-vaccination and directing attention to the necessity of vaccination, but have arrived at the conclusion that the Local Government Board should issue a general circular to all the sanitary authorities on the subject. The council of the Dublin Sanitary Association have adopted the following resolution: "That, having regard to the fact that small-pox at present prevails in several English towns, some of which are in daily communication with Dublin, this council are of opinion that it is desirable that the public in Dublin should be warned of the danger to which they are liable and that measures be taken to issue a notice for this purpose."

Examiners for the Army Medical Service.

The Provost and Senior Fellows of the University of Dublin have adopted the following memorial to the Secretary of State for War: "We, the Provost and Senior Fellows of Trinity College, Dublin, desire to offer the following remarks on the constitution of the proposed new Court of Examiners for the Army Medical Service. We recognise fully the high qualifications of such London physicians and surgeons as may be appointed examiners under the new system, but are of opinion that equally qualified physicians and surgeons from important medical centres such as Dublin and Edinburgh are entitled to be appointed quite as well as their London colleagues. We are of opinion that a full inquiry would show that a majority of the army surgeons are, and have always been, educated in the Dublin and Edinburgh Medical Schools, and that it would be unfair to exclude the physicians and surgeons of Dublin and Edinburgh from the office of examiners of candidates for the Army Medical Service."

Health of Dublin for April.

As compared with March there was a diminution by nearly one-half of the number of fatal cases of typhoid fever, but there were slight increases in the mortality from scarlet fever, whooping-cough and diarrhœa. The unusually warm weather which prevailed during the whole month reacted most favourably upon the public health. The death-rate was 3·17 per 1000 below the mean rate for the corresponding period in the previous ten years.

May 30th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Ancient Buildings of the Faculty of Medicine.

MANY efforts have been made to induce the Paris Municipality to preserve from demolition the interesting remains of the cradle of French medicine. The buildings, which consist of two amphitheatres—one of which goes by the name of "l'amphithéâtre de Winslow," because that illustrious anatomist once taught there—date from the fifteenth century and are situated in the Latin Quarter, on the left bank of the Seine, opposite Notre Dame and in the angle of intersection of the Rue de la Bûcherie and the Rue de la Hôtel Colbert. The large theatre serves now as a public washhouse, while Winslow's theatre is occupied by several families of artisans. The sum of 200,000 francs is required to save this most interesting architectural and archæological monument. In these days of vast military expenditure a certain hesitation in voting such an amount is excusable, but all medical men, and more particularly those who have had the advantage of studying in Paris, will without exception wish all success to the efforts now made by the Société des Amis des Monuments to prevent the disappearance of such a unique structure.

Graduation in Medicine in France during 1891–92.

The seven French Faculties of Medicine admitted during the academical year 1891–92 635 persons to the degree of Doctor in Medicine. On consulting the table below it will be found that this constitutes an increase of 41 over the graduations of the previous year:

	1891–92.	1890–1891.
Bordeaux	74	55
Lille	14	14
Lyons	108	71
Montpellier	53	60
Nancy	10	11
Paris	371	374
Toulouse	5	9
	635	594

During the past ten years the number of diplomas delivered to doctors of medicine was 6090, or an average of 609 per annum.

An Ingenious Plan.

Surgeons are only too well aware of the difficulty of "keeping an eye" on patients who leave hospital after an operation which has proved apparently successful. Professor Gayet of Lyons has devised a curious method of identification, which he has recently had occasion to put into practice. Having cured a man of an arterio-venous aneurysm of the internal carotid artery and the cavernous sinus, and being desirous that this happy result should be verified after the death of the patient, he paid his patient a certain sum for having tattooed on his arm the following lugubrious words: "Anévrisme artério-veineux du sinus caverneux guéri; prière d'autopsier."

The Tongue in "la Grippe."

"La grippe" is a disease which, simulating as it does various other pathological conditions, is often puzzling from a diagnostic point of view. Who, on being called to cases of "la grippe," has not thought of such possibilities as typhoid fever, acute tuberculosis, cholera, simple "embarras gastrique" &c.? If one may believe M. Faisans (*Société Médicale des Hôpitaux*, May 19th), examination of the tongue will disperse all such doubts. The tongue in "la grippe" is of the normal size and form, not being broad and thick as in "embarras gastrique," or small, contracted and pointed, as in typhoid fever. It is always moist, unless some inflammatory complication be present or imminent; it is smooth and even, the papillæ not being prominent. But the chief characteristic feature of the tongue is its colour—it is the *opaline tongue*. This opaline colouration is sometimes uniformly spread over the whole lingual surface; in other instances the middle and the base are opaline, the edges and tip being covered with distinct rounded opaline or bright red spots. This pathognomonic appearance may be often noted from the first onset of the disease and may persist for a more or less prolonged period after recovery. Purgatives and emetics do not modify it in any degree.

A Sign of Aneurysm of the Aorta.

The above condition is not always easy to diagnose. Statistics derived from an American source show that of thirty-two cases observed in two years a correct diagnosis during life was only arrived at in eleven. M. Potain drew attention the other day at the Charité to a characteristic sign present in a patient now under his care. It consists in a kind of tracheal shock—a sudden dipping of the windpipe—easily recognised by the finger. This rhythmic downward pull of the trachea is caused by the traction of the aneurysmal pouch, which, seated astride the bronchus, pulls on it at each cardiac contraction. This sign, better known as "tracheal tugging," was described originally by Surgeon-Major Oliver (THE LANCET, vol. ii., 1878, p. 406) and subsequently in fuller detail by Dr. Macdonnell of Montreal (THE LANCET, 1891, vol. i., p. 535).

May 30th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

Cholera in Russia.

WITH the approach of warmer weather speculation is rife as to the prospects of a reappearance of the cholera epidemic of last year. In a few of the governments of Russia the disease has never wholly disappeared, although the cold of the recent winter has been of a severity rarely experienced even in these northern climes. Between Feb. 26th (March 10th) and May 7th (19th), when the last bulletin was published, cases of cholera were reported from twenty out of the sixty governments of European Russia, from three governments of the Caucasus and from Tobolsk in Siberia. In the large majority of these districts the numbers returned have been quite small, in not a few only a single case of death having occurred during the ten weeks in question. The government which has suffered most in this period is that of Podolia, where there have been 1690 cases and 463 deaths from cholera. The last fortnightly return from this district shows, however, a distinct diminution in the amount of sickness and death due to the epidemic. It is satisfactory to note that in the last weekly bulletin issued by the Medical Department of the Ministry of the Interior there appears the name of only one government—that of Saratof—with three cases and two deaths from cholera. Unfortunately, however, this cannot be held to imply that the disease is extinct elsewhere, as many of the governments do not make returns every week. In the period named there were in all 2388 cases of cholera in the Russian empire, with 733 deaths. The Government authorities are actively preparing to cope with a revival of the epidemic. At the present time a series of meetings is being held in the Ministry of Ways and Communications to decide on the next measures to be adopted on the railways and waterways should the experiences of last summer be repeated. In St. Petersburg not a single case of cholera has been reported since the middle of December. The winter is stated to have been a healthy one in the capital, notwithstanding the intense and prolonged cold. With the advent of spring and the melting of the accumulated masses of snow and ice, the amount of sickness has greatly increased, and a large number of cases of influenza and typhoid fever are reported.

Sanitary Exhibition.

An exhibition of objects connected with Hygiene and Sanitation is to be held in St. Petersburg this summer. It is expected to open on May 21st (June 2nd) and to remain open for three or four months. The exhibition is due to the initiative of the Russian Society for preserving the Public Health. It is the first of the kind held in Russia. Various Government institutions will lend their support, and a large number of learned societies both in St. Petersburg and in the provinces will send exhibits. The catalogue is to contain full descriptions of the various objects displayed, and will, it is expected, form an instructive volume.

Cattle Plague.

For the past ten months cattle plague (*tchuma*) has committed fearful ravages amongst the horned cattle in the province of the Don Cossacks and in the government of Voronezh. The disease has now spread to the Tambof Government and it is feared that as the warmer weather comes and the cattle are sent freely to pasture there may be a widespread epizoötic, unless the laws relating to the extinction of the plague are stringently applied.

St. Petersburg, May 14th.

AUSTRALIA.

"MR. MARTIN DOYLE AND MEDICAL ADVERTISING.

To the Editor of the A.M. Gazette.

DEAR SIR,—In *The Lancet* of Nov. 28th, 1891, p. 1255, you will see—under 'Australia, from our own Correspondent: Medical Advertising'—an attack on the profession in Australia. The correspondent was then Mr. H. M. Doyle, L.R.C.P., M.R.C.S.E. I enclose you, for your perusal, copies of advertisements inserted by this medical man *daily* in the *Newcastle Morning Herald* and *weekly* in the *Wallsend and Plattsburg Sun.* Yours faithfully,

Wallsend, N.S.W., March 7th, 1893. JOHN B. NASH.

The following is an exact copy of Mr. Doyle's advertisement as it appears in the *Newcastle Morning Herald:*

Dr. H. MARTIN DOYLE,
PHYSICIAN AND SURGEON,
Late Medical Superintendent of the Newcastle Hospital,
MAY BE CONSULTED
AT
No. 4, Bolton-street,
Near the Newcastle Railway Station.

OFFICE HOURS: Before 12, from 3 to 5 P.M., and after 7 P.M.

Diseases of the Eye, Ear, Throat, and Chest, special."

The above letter is published in the *Australasian Medical Gazette* of April 15th, 1893. We think it necessary, in view of the above and a similar advertisement which has been forwarded to us from Australia, to state that Mr. H. Martin Doyle no longer occupies the post of "our own correspondent" in Australia or has any connexion whatever with THE LANCET. We are grieved to think that a gentleman who came to us with the highest recommendations from one of his former teachers should have deemed it necessary to adopt a measure unworthy of the high traditions of our profession and his own abilities. It is right to state that by the last mail we have received a letter from Mr. Doyle in which he voluntarily resigns his position as our correspondent.

Obituary.

MARCUS BECK, M.B., M.S. LOND., F.R.C.S. ENG.

PROFESSOR MARCUS BECK, whose untimely death we briefly noticed last week, was born at Isleworth in October, 1843. His parents on both sides belonged to the Society of Friends. His mother, who died only last March, aged eighty-four, belonged to an old Quaker family residing at Hitchin, and was the second wife of his father, who died at a comparatively early age, leaving, besides the subject of this memoir, a family of six sons and two daughters.

Marcus Beck was educated at Queenwood College, Hampshire, under George Edmondstone, a man who was one of the first to introduce the teaching of science into the ordinary school curriculum and who had successively as science masters such men as Frankland, Tyndall and Debus. Subsequently Mr. Beck was at Mr. Arthur Abbott's school at Hitchin. On leaving school after matriculating at the London University he proceeded to the University of Glasgow, where his cousin, Sir Joseph Lister, was the Professor of Surgery. He lived at this time in Professor Lister's house, and the enthusiasm which he developed for the scientific study of surgery was mainly due to the early teaching, example and influence of his distinguished cousin. The value of this preliminary training was shown when he returned to London and entered at University College, in a year which was particularly distinguished by the number of students who have subsequently become famous. During his student career he obtained more than the average number of class prizes, and at the University of London, at the examination for the degrees of M.B. and B.S. in 1867, he obtained the first place in medicine and the second place in surgery (qualifying for the scholarship). It is interesting to note that at this B.S. examination Mr. Beck made a good fight for first place with his friend Mr. H. G. Howse of Guy's, who at the time of his death was his co-examiner in surgery at the University. In the following year these two distinguished competitors met at the M.S. examination, on which occasion Mr. Beck beat Mr. Howse for first place, the latter, however, being qualified for the gold medal.

During the period of his student career he was greatly influenced by the example and encouragement of his fellow student Mr. Cluff, whose premature decease robbed the profession of a most gifted and brilliant member. Marcus Beck always spoke of him as the most talented and thorough man he ever came in contact with, and this opinion has been very generally endorsed by others. After acquiring such a high degree of credit during his student career and filling the usual house appointments he was in 1872 appointed surgical registrar to the hospital. Up to that date the surgical records, though kept with great accuracy, had not assumed that methodical arrangement which has subsequently characterised them, the introduction of which may be traced to Mr. Beck's original organisation. At this time he commenced private practice, taking—in conjunction with his friend and colleague Dr. Vivian Poore—a house in Wimpole-street, an arrangement which subsisted up to the time of his death. About the same time the connexion which had been commenced in the wards of University College between Marcus Beck and Professor Erichsen was drawn closer, Mr. Beck being appointed the latter gentleman's private assistant, and shortly afterwards he was entrusted with the task of editing Professor Erichsen's classic work, "The Science and Art of Surgery." In 1873 he was appointed assistant surgeon to University College Hospital, and from that date till the time of his death he may be said to have devoted his whole time and energies to the work in the wards and the teaching of the students. In 1878 he was appointed, in conjunction with Professor Greenfield, Mr. Jeremiah McCarthy and Dr. Ralfe, a member of the Committee appointed by the Pathological Society to inquire into the causes of pyæmia and septicæmia. It is to be feared that the extra work and the enormous amount of labour this entailed on him may have been one of the causes that induced the first symptoms of the disease (diabetes) which, after fifteen years' struggle, was finally to cause his death. Although stricken down thus early in his career, he was by no means discouraged and bravely faced the situation. He recognised at once that with his diminished energy he could not hope to become both a great teacher and a busy consulting surgeon, and he chose to devote himself mainly to his hospital duties and the work of teaching. But if he thus retired from the active and lucrative side of professional practice he devoted himself all the more thoroughly to his hospital work, to untiring and often prolonged visits to the wards, and to lectures and demonstrations to the students. Most of Marcus Beck's best work therefore was of that silent, solid character that only finds its reward, after many years of patient sowing, in the success of the pupils taught, and in that he has already reaped a rich harvest. He was, perhaps, too severe a critic to be a voluminous or popular writer. But if he seldom came before the profession as an author, the work which he has done will long bear fruit.

Perhaps the most memorable literary work which Marcus Beck has left us is the monograph in Reynolds' System of Medicine on "Consecutive Nephritis," or the so-called surgical kidney—a treatise which has completely altered the views previously held regarding the pathology of that disease. Next to that, or perhaps before it in the opinion of his colleagues, was his great task in supervising and cataloguing the surgical pathological specimens in the museum of University College. This work, carried out in conjunction with Mr. Shattock and Mr. Stonham, involved an amount of patient labour which can hardly be estimated by those who are now benefiting by this exhaustive and most instructive production. We have already alluded to Mr. Beck's work on the "Pyæmia" Committee, and those who have read, or will refer to, the report published in the Transactions of the Pathological Society (1879) can testify to the amount of solid labour which he has contributed to the portion allotted to him both as regards the amount of clinical matter collected and investigated and the statistical results obtained. In editing the great work of his master, Professor Erichsen, Marcus Beck succeeded in bringing it fully abreast of modern pathology, a labour which

involved an enormous amount of research in the archives of English, French, German and American surgery.

Brought up as it were at the feet of the great leader in antiseptic surgery, Mr. Beck was one of the first in London to adopt the antiseptic treatment of wounds, and it was largely due to his enthusiasm and energy that University College Hospital was one of the first hospitals in London to enter upon the great revolution which has so largely tended to lessen the mortality of surgical cases. In 1885 he became full surgeon to University College Hospital, and in the same year he succeeded to the chair of Surgery in that college. In 1891 the high opinion entertained of him by the profession was expressed by his election to the Council of the Royal College of Surgeons of England at a comparatively early age and on his first candidature. He had for two years acted as Examiner in Surgery to the Board.

In the brief notice which appeared in our columns last week announcing the intelligence of his demise we quoted the testimony of a fellow-student and former colleague, and we can add nothing to that eloquent testimony to his great ability as a teacher and surgeon. We would rather touch now on his private life and on how he appeared in the regard of his numerous friends. The two great principles that guided Marcus Beck in his career were veracity and thoroughness, to which may be added a most loving and tender heart; though somewhat caustic in speech and impatient with pretension, he never wittingly gave offence. Next to his hospital work he gave himself up to the enjoyments of home. Connected with Isleworth from his birth, as soon as he was able to afford it, he established with his friend Dr. Poore a charming country residence at Spring Grove, near his mother and his sisters there. Here it was that he died. Although for some time past his friends had been feeling anxious about him, knowing that the disease had progressed of late, still they were hoping that with care his life might be prolonged for some years. On May 14th, however, symptoms of influenza developed. By Friday, May 19th, the disorder was declining, and on the following day (Saturday) the temperature fell to normal. On the evening of that day every prospect of danger seemed to be passing away and he was able to take a keen interest in current events, but later on it was noticed that he was somewhat wandering and rambling in speech and some degree of dyspnœa set in, which was afterwards succeeded by coma, in which he quietly passed away. He was buried in the cemetery of the Society of Friends at Brentford End on Thursday, May 25th, and a numerous gathering of colleagues, old fellow students, present students and numerous personal friends, both of the profession and without, testified to the love and respect they bore him and to the esteem which his great merits evoked.

At the grave we noticed, in addition to the whole of his colleagues, who were present without exception, Sir Joseph Lister, Professor Erichsen, Mr. Trimmer, Mr. Durham, Dr. Hare (whose house physician Mr. Beck had been some twenty-six years ago), Mr. P. B. Mason (Burton-on-Trent), Dr. William Price (Cardiff), Mr. Symonds (Oxford), Dr. Gostling (Worthing), Dr. Julian Evans, Dr. Charles Read (St. George's-square), Dr. Frank Hinds (Worthing), Mr. Drew (Oxford), Dr. Pasteur, Dr. Sidney Coupland, Mr. Pearce Gould, Mr. Raymond Johnson, Dr. Arkle, Mr. Donald Gunn, Mr. A. S. Murray (British Museum), Mr. John Bonus, Mr. Lewis Karslake, Mr. White Mr. Shoppee, and Dr. Allchin. In addition to these there were a large gathering of relatives and a great concourse of students to whom Mr. Beck had attached himself most affectionately. The floral tributes were very numerous, including magnificent wreaths from the Dean of the Faculty of Medicine of University College, the residents of the hospital and the general body of the students. The service, which was short and most impressive, was conducted by Mr. Baker, the well-known custodian of the Herbarium at Kew, and fittingly concluded with the Psalm, "Behold, how good and how pleasant it is for brethren to dwell together in unity."

KEY HARDEY, M.R.C.S. ENG.

BY the death of Mr. Key Hardey, which took place at his residence, 4, Wardrobe-place, Doctor's-commons, at an early hour on the morning of May 18th, the City of London loses one of its oldest practitioners. This valued life was brought to a close very suddenly from failure of the heart's action. Mr. Hardey was apparently in his usual health when he retired to rest at about eleven o'clock on the night of the 17th ult., and as late as nine o'clock that evening he had been out in attendance upon a patient. At 2 A.M. on the 18th he was summoned to attend the same patient and was in the act of putting on his boots for that purpose when it was observed by one of his daughters that he had fallen forwards, in which position he remained for a few seconds. His daughter immediately raised him into a sitting posture and then she discovered that her father was unconscious, in which condition he passed away within a few minutes. The deceased, who was in his seventy-ninth year and one of the oldest inhabitants of Castle Baynard Ward, had practically devoted his whole life to his professional duties in the locality in which he died. He came of an old Cheshire family and was born at Toddington in Bedfordshire. After passing through the period allotted to an apprenticeship in accordance with the custom then prevailing, he entered as a student at St. Bartholomew's Hospital, becoming a member of the Royal College of Surgeons in the year 1851. Previously to coming to London Mr. Hardey held the appointment of assistant surgeon to the junior school of Christ's Hospital at Hertford. When he first took up his residence in the ward of Castle Baynard upwards of forty years ago he did so in the capacity of assistant to Dr. Baker at 11, Wardrobe-place. He subsequently commenced practice on his own behalf and took a house for that purpose in Carter-lane, thence removing to Earl-street, Blackfriars, and finally to 4, Wardrobe-place, where he had resided for the past thirty years. Mr. Hardey held the appointment of medical officer to the Provident Association of Warehousemen, Travellers and Clerks. He was a Fellow of the Obstetrical Society and a Freemason, having passed through all the grades. For twenty-four years he retained the office of warden to the church of St. Andrew-by-the-Wardrobe, only resigning at the last Easter vestry meeting. As the visitation to the archdeacon had not taken place he was virtually churchwarden at the time of his decease. He had in addition served other public offices in the ward and was a liveryman of the Tin-plate Workers' Company.

Those who had the pleasure of knowing Mr. Hardey, whether in his professional or social capacity, can only regret that they have lost a true friend. He was a man of powerful physique and indomitable will, as also a successful practitioner. Of a genial and kindly disposition, few men were better able to enjoy a good joke than Mr. Key Hardey. Hospitable, generous and an exemplary father, he leaves two daughters to mourn their loss. The funeral took place at Nunhead Cemetery, where the deceased's wife—who died in 1859—lies buried, and in accordance with the express wish of the family was of the simplest description. The first portion of the service was celebrated at the Church of St. Andrew-by-the-Wardrobe—where a large congregation assembled—the mortal remains of the deceased gentleman being consigned to their last resting-place amidst every token of respectful sympathy. The funeral sermon was preached on Sunday evening, May 28th, by the rural dean (the Rev. Dr. L. B. White) at the Church of St. Andrew-by-the-Wardrobe.

WALTER BAUGH HADDEN, M.D. LOND., F.R.C.P. LOND.

THE news of the death of Dr. Walter Baugh Hadden will be received with deep regret by a large part of the medical profession both in London and in the provinces, for he was very widely known and appreciated. He was attacked by pneumonia on May 18th and died eight days later. It is possible that his illness was in some measure derived from his post-mortem work, in which he was engaged up to the day of its onset. On the first day of his illness he developed several pustules on the right wrist, and during the last three days of life there was evidence of acute mischief at the left shoulder-joint. At any rate there can be no doubt that the immense strain which falls on any active member of the staff of a large hospital had told upon him. He had laboured with scarcely a day's rest for more than twelve months without a break, and his labours were real and honest, as his colleagues well knew. Whatever power of resistance to disease a man may inherit, it must needs be greatly lowered by such a laborious life as his. All honour then to the man who, knowing this, goes straight along his path as Dr. Hadden did. He died at the age of thirty-seven, in the prime of a life which would have been full of honour. Dr. Hadden was born in 1856, being the younger son of Mr. Robert Hadden, one of the proprietors of the *Liverpool Courier*. He was

educated at the Merchant Taylors' School at Crosby and in 1872 began his medical studies at the Royal Infirmary of Liverpool, being then but sixteen years of age. From the first he showed that capacity for steady, continuous work which was the secret of his rapid success. Entering St. Thomas's Hospital in 1875, he rapidly qualified, took the M.D. degree of the University of London in 1879, at the early age of twenty-three, and was elected a Fellow of the Royal College of Physicians at thirty-two. Soon after he qualified he went to Paris and spent some time in following the practice of Professor Charcot, and in 1882 he translated his master's "Localisation of Cerebral and Spinal Diseases" for the new Sydenham Society. His merit had been already recognised at St. Thomas's Hospital and from this time onward he was absorbed into the maëlstrom of the life of a London hospital, with work to the right of him and work to the left of him, and ever before him a steady idea of duty. He passed from post to post, doing all the work that came to his hands with thoroughness and allowing scant time for exercise or amusement. He filled the office of Medical Registrar for six years, acquiring thereby a wide knowledge of disease and showing throughout a special inclination to the study of nervous diseases, to which he was attracted, as so many have been, by the inherent difficulty of the subject. For twelve years he was Demonstrator of Morbid Anatomy, carrying on his post-mortem work, as we have already said, up to the very commencement of his last illness. He was Joint Lecturer on Pathology and Lecturer on Materia Medica and Therapeutics. He was for some years Physician to the Royal Hospital for Women and Children in Waterloo-road and for the last seven years had been Assistant Physician to the Hospital for Sick Children, Great Ormond-street. In 1885 he was appointed Assistant Physician to St. Thomas's Hospital and was in full expectation of becoming Physician to the hospital in the summer of this year. This is the record of a short life well spent.

Apart from hospital work, his hands were always full. He was Examiner in Materia Medica at the Royal College of Physicians and he was a member of most of the learned societies, in whose proceedings he took an active part. At the time of his death he had just completed two years' service as secretary to the Clinical Society, and as secretary to the Committee on Myxœdema appointed by that society he played a considerable part in the production of an exhaustive report. He wrote several articles in the "Dictionary of Practical Medicine," mostly in the department of neurology, and he contributed numerous valuable papers to THE LANCET, to the St. Thomas's Hospital Reports and to *Brain*. Such papers as those on "head-nodding and head-jerking in children," on "certain defects of articulation in children" and on "dry mouth" may be taken as types of his work, showing as they did close methodical observation with capacity for accurate description. When we consider that all this work was completed before he reached the age of thirty-seven, we gain some insight into his qualities. His work was not of the superficial kind and most certainly it did not consist in the mere recording of unusual cases. He had the faculty of observing. He would note some obscure point and would go far to throw light on it by dint of sheer methodical inquiry. The result of much of his labour must necessarily remain unpublished. His writings were always sound and reliable; there was no trace in them of large loose generalisation and they were his own, forming as genuine and independent a work as man ever did. As a practical physician he was in the front rank of the men of his time and he stood on that safe ground which rests on long-continued direct observation of the effects of disease. As a lecturer he was clear and precise, with a good voice and delivery. Never-tiring industry, close observation and methodical habits were the tools which his intellect found ready to hand; and his was a strong intellect of the broad well-balanced type. He was also a practical man of the world. He entered with energy into all the details of medical school administration and felt and showed the deepest interest in all things concerning it in matters of play as in matters of work; he was keenly interested in the nurses' coöperation, to which he at all times gave efficient and ready help. He had a very distinct personality, with colour in it; he was perfectly straight and trustworthy towards colleague and student alike. In him many a man has lost a true and kindly friend, the medical world has lost one who added something to its knowledge and who would have added more, and even in the shifting sands of a hospital his sinking has made a gap which it will take long to fill up.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

FRIDAY, MAY 26th, 1893.

SIR RICHARD QUAIN, President, in the chair.

REPORT OF EXAMINATION COMMITTEE.

The Final Examinations.—The Conjoint Board in Scotland.

THE Council proceeded to consider that portion of the report of the Examination Committee which dealt with the report of the Visitors and Inspector on the Final Examination of the Conjoint Board in Scotland. The committee set before the Council a summary of the report of the Visitors and Inspector and of the reply made by the Committee of Management of the Conjoint Board. This summary stated that:

The visitors and inspector report sufficiency in respect of the final examinations for the triple qualification in Scotland. They comment on the absence of a practical examination in operative surgery and of any examination on the ordinary diseases of the ear and eye and of infectious diseases. In respect of midwifery, they are of opinion that attendance on six cases is insufficient and not in accord with the recommendations of the Council. They object to the subjects of midwifery, gynæcology, medical jurisprudence and public health being grouped together as a "division," to be passed independently in this examination, whereby exemption from re-examination in one of these subjects may be secured by a regulation pass mark in one half-subject. They recommend greater attention to be paid both to written and oral examinations in pathology, mental diseases and public health. In respect of marking, they consider the value accorded to clinical examinations too low. In reply, the Committee of Management declares that the system of "divisional" examinations is deprecated by it, but that it is forced upon it by the action of the London Conjoint Board, and it is hoped that the Medical Council will make recommendations guarding against this system in future. The system of marking has been altered, so that rejection in Medicine or in Surgery now carries with it rejection in Therapeutics or Surgical Anatomy. In future no candidate will be admitted to an oral examination in Medicine or Surgery who has not obtained at least 50 per cent at the Clinical examination, and this the committee considers sufficiently secures the supremacy of the Clinical examination. It is pointed out that attendance on lectures on Ophthalmic, Aural and Operative Surgery is not yet obligatory on students, nor is attendance on cliniques for infectious or mental diseases compulsory, though the board strongly recommends such courses. Under the regulations for the five years' curriculum such attendances will be obligatory. In respect of operative surgery it is declared that an examination on this is absolutely unattainable in Edinburgh and if it was carried out, as suggested, and as is possible, in Glasgow, candidates would certainly avoid that part of the examination if it was only held at one centre and for the same diploma. The difficulties in the way of securing twelve cases of midwifery for each candidate are declared to be insuperable. Arrangements are in course for examinations in pathology in future under the five years scheme. Hitherto this subject has not been compulsory either for education or examination.

Discussion on the Report.

Sir DYCE DUCKWORTH, seconded by Mr. BRUDENELL CARTER, moved that the summary be forwarded to the Conjoint Board in Scotland.

Dr. GLOVER said that the Scottish corporations were to be congratulated upon the general tone of the report. He especially noted the laudatory remarks on the examination in medicine and therapeutics.

Dr. P. HERON WATSON said that unfortunately it had again and again been shown that it was impossible in Edinburgh to insist upon a student having more than six cases of midwifery. He regretted it very much, but the Conjoint Board could not see their way to alter the requirement, anxious as they were to meet the views of the Council in every respect.

Dr. ATTHILL took exception to midwifery and gynæcology being bracketed with medical jurisprudence.

Dr. P. HERON WATSON explained that there was no mixing of the subjects. The assessing was merely done by the examiner in one subject for the examiner in the other.

The Divisional System in the Final Examinations.

Dr. MCVAIL called attention to the breaking up of the subjects of the final examination, allowing a man to pass in surgery to come up again for medicine, and to come up again for midwifery. He regretted very much that, as the visitors and inspector had drawn attention to the subject and the Committee of Management had referred to it, the Examination Committee had practically passed it over and given no indication or laid down any desire that the Council should give any indication as to whether this system should be continued. No doubt the committee would view all this at the end of the cycle of visitations, but that meant a loss of two or three years. The Committee of Management of the Conjoint Board in Scotland invited the Council to make recommenda-

tions guarding against divisional examinations. He knew from his experience in conducting the clinical examinations of the Board that students came up for single subjects, and they were generally not at all a desirable class of men to have. Some even came up for midwifery alone. He thought it was the duty of the Council to give the examining boards, even those in London, some clear indication of its opinion on this subject. For his own part, he held most emphatically that unless a man could at one and the same time pass all the subjects of the final examination—medicine, surgery and midwifery—unless he could keep in his head a sufficient knowledge of these three subjects together, he should not enter the profession at all. The blame for this divisional system was thrown upon the English Examining Board, the greatest examining board in the world. Was it the case that the great Conjoint Board in England was going to prevent the Conjoint Boards in Scotland and in Ireland from doing what they thought was right? If the Conjoint Board in England persisted in the system of divisional examinations it was impossible for the other Conjoint Boards to do anything else. He was sorry Sir Dyce Duckworth's committee had not spoken out on the subject, which was manifestly not one for delay.

Dr. D. MACALISTER reminded Dr. McVail that the subject was up in 1890, when the Council expressed the opinion that any body which held a qualifying examination in one or two of the subjects without the other was going against the law, because the Act of 1886 spoke of a qualifying examination in medicine, surgery and midwifery as the thing to be required of all candidates for the profession. The matter was put before the legal adviser of the Council, who gave the opinion that they had no power to require in an emphatic way that the examinations in the three final subjects should be conducted simultaneously. This, he thought, should make the Council pause before laying down any definite rule.

Mr. BRYANT explained that his personal opinion agreed entirely with that expressed by Dr. McVail. He had not yet, however, been able to bring his College quite to the same view, but he could not help thinking that an expression of opinion by this Council would have a most material effect. Another important consideration would be the determination of the Conjoint Board in Scotland not to follow in their footsteps.

Sir DYCE DUCKWORTH regarded the breaking up of the examination as an extremely bad system. This, however, was not the time to take action; the time would be when the examination of the Conjoint Board in England was visited. He might say that although the system had gone on for many years it was very little availed of. He thanked Dr. McVail for calling attention to the subject and hoped the opinion of the Council would be taken notice of by the body which he (Sir Dyce Duckworth) represented.

Dr. MCVAIL said the system was largely taken advantage of in Scotland. He found in the report that out of fifty-two candidates who presented themselves only twenty-two entered for the entire examination.

The motion of Sir Dyce Duckworth was then put to the Council and adopted.

Dr. MCVAIL moved as an addition: "That this Council is of opinion that the Final Examination should include the subjects of Medicine, Surgery and Midwifery, and that all these subjects should be passed together."

Sir WALTER FOSTER seconded the motion, saying that this expression of opinion was demanded and was calculated to have good effect not only upon the Scotch bodies but upon others.

Sir WILLIAM TURNER thought it rather premature at this stage of the proceedings to come to any wide resolution. As to the question raised by Sir Dyce Duckworth, the Council had already a recommendation on that very matter. The recommendation was passed in June, 1890, and was to the effect that, seeing that the practice of different authorities varied on the subject whether a student who failed to satisfy the examiners in each of the several subjects of medicine, surgery and midwifery should be remitted on all of them or only on that in which he failed, the Council recommended that some general principle should be adopted with reference to the question and suggested that a percentage of not less than sixty marks on each of any two subjects, supposing the pass requirement to be fifty, should exempt from re-examination in those subjects.

Dr. HECTOR CAMERON said there was no chance of the Committee of Management of the Scotch Board recommending a change in their practice until they were assured that the London Board would do likewise, and therefore he thought it would be well to delay the matter.

Dr. MCVAIL at this stage said he would be prepared to modify his motion and make it run thus: "That the Council calls the attention of the Examination Committee particularly to the remarks of the visitors and inspector to the Scotch Examination Board and to the reply of the Committee of Management, and that the Council desires that the Examination Committee shall by-and-bye report on the subject."

Sir WILLIAM TURNER said he would be happy to second such a motion.

After some discussion the motion in an amended form, incorporating the references to the subject in the Examination Committee's report, was passed by the Council.

MEDICAL AID ASSOCIATIONS.

The Council then proceeded to consider the report of the the Committee on Medical Aid Associations.

The Committee consisted of Dr. Glover (chairman), Dr. Leech, Dr. Bruce, Dr. Macalister, Mr. Wheelhouse and Mr. Teale, and was appointed on Nov. 22nd, 1892, to undertake the consideration of the question of Medical Aid Associations and the evils said to be attendant on them.

THE REPORT OF THE COMMITTEE.

Chief Points in the Investigation.

The Committee drew up a series of questions which were issued to the various medical officers of the associations, the points in the answers to which may be thus stated:

1. The amount of work to be done by the medical officer, or rather the possibility of overtaking the work satisfactorily and conscientiously.
2. The appropriation of profits by the association.
3. The fitness of the patients to receive medical attendance on terms of accommodation, judged by an estimate of the proportion of members that could pay a private practitioner.
4. The existence and propriety of a bond or contract with a lay body restricting or withholding the right of practice in a given district.
5. The practice of canvassing or "touting" for patients on the part of the associations or of their constituent friendly societies.
6. The general opinion as to the soundness or otherwise of the charges brought by L.S. Leslie Phillips and others against the methods employed and the effects produced by the associations.

The Committee have desired to show great deference to the legitimate and beneficial work of the friendly societies and of those who with much ability conduct them; at the same time it has been shown that this is not a question of charity or yet one of "pure philanthropy," as it has been called, but one deeply affecting, on the one hand, the efficiency of the medical service of bodies composed chiefly of the best of the working classes, and, on the other, the honour and dignity of the medical profession.

Summary of the Answers.

The answers of the medical officers in reference to the above points, after careful analysis, give the following results:

1. Can the work be done satisfactorily and conscientiously?
   - Yes (with or without qualification) 45
   - No " " " 33
2. Profits and their appropriation: In nearly every case the medical officer and his assistant, where there is one, are paid a fixed sum, generally only a part of that paid by the members. It does not appear from the accounts that the annual savings or profits are large.
3. Ability of a certain proportion of the members to pay a private practitioner—
   - Asserted by 55
   - Questioned by 29
4. Bond restricting practice—
   - A bond 37
   - No bond 38
5. Canvassing—
   - Asserted by 26
   - Denied by 49
6. Dr. Phillips's views generally—
   - Endorsed by 57
   - Dissented from by 27

Are the Medical Officers Overworked?

In its guide rules one society states that:

"Experience teaches that one average medical practitioner can undertake and attend with ease upon an association of 2000 persons, can hold interviews with patients, prescribe and dispense their medicines, and visit such as are unable to attend at the surgery. An average medical practitioner and dispenser can undertake the duties attendant upon an association of from 2500 to 3500 members. The same practitioner, having an assistant capable of seeing patients and dispensing medicine and visiting under the direction of the chief medical officer, can work an association of from 3000 to 4500 members. When associations have upwards of 5000 members it will be found that either three medical men or two medical men with a dispenser will be required."

The committee find that these limits, however, are often exceeded. Thus, in the Northampton Friendly Societies' Medical Institute, with a total membership of 14,369, there are only three "medical officers" (Report, 1891), and one of these is not legally qualified. In Wolver-

hampton, with a total membership of 11,044, there are two medical officers (Report, 1892). In Derby (Report, 1891), with a grand total of 12,365 members, there are but three medical officers. In the Nottingham Friendly Societies' Medical Institute, with its 4501 members, there is but one medical officer—admitted by the committee to be "one too few"—assisted by a locum tenens. In the Leicester Friendly Societies' Medical Institute there is a membership of 7890, with two medical officers. In the York Institute there are 10,251 members, with three medical officers. These numbers, with apparently inadequate staffs, support the statements that have been made to the Committee that in many of the institutions the medical officers are frequently overworked. Few men hold the office long, so that frequent changes are the rule.

The following extracts from statements to the Committee will interest the Council.

One gentleman says:

"Many men break down from overwork." In one month his recorded work was 600 visits, 1100 consultations, ten confinements, besides operations, vaccinations and certificates."

Another gentleman says:

"I had sometimes 200 to 250 cases a day and 150 midwifery cases a year. I would say most assuredly that, such a large number of persons being admitted who might fairly have been under other care, he really proper cases for such a society were neglected. In the winter it was beyond all bearing. It was quite impossible to do the work."

Another says:

"It is utterly impossible to give proper attention to individual cases—to give the patients even an ordinary examination."

A gentleman, who speaks well of the treatment he received from his association, says:

"We could not possibly stand the strain long."

Another ex-medical officer says:

"The work being so heavy, it was absolutely impossible to give the necessary attendance to those who should have received it."

A medical officer says:

"Always in winter I felt I did not give attention to individual cases. I think on the face of it, if it is anything, it is a 'sweating system.'"

The Question of Profits.

One chief objection in principle made to these associations, or rather to the position of the medical officer in them, is that they sometimes use the medical officer as a means of profit or money-making, giving him a definite salary, generally with free house, furnished or unfurnished, with or without a few perquisites, such as vaccination and midwifery fees, paying the drug bill, making an allowance for carriage or cab fare and then appropriating the surplus.

In many cases part of the midwifery fee is retained by the association, and in one or two cases, as in that of Nottingham, where 4,500 members have to be attended by one man, the midwifery fees, as well as the vaccination fees, go entirely to the association. At Wolverhampton, where the midwifery fee is 15s., one-third is retained by the association. When asked about this the secretary said: "The doctors really earn their money; but we pay them their salaries and it is part of their work. We ought scarcely to be expected to find the man and have nothing for it." In other societies, as at Luton, a third of a half-guinea or 10s. fee is retained; but in most societies the whole sum goes to the medical man.

It has further been alleged that there is a commercial element in these societies. The regular income is derived from the subscriptions of the members, and these are supposed to be paid for medical attendance and drugs.

The commercial element is illustrated in the case of the Preston Friendly Societies' Medical Association. It has assets to the amount of £1280 3s. 1½d. According to the report for 1891, the Twenty-second Annual Report, there was a gain on the year of £140 16s. 7d. There appears to be a kind of partnership in business between the medical officer and the Association, for the accounts give, in addition to a fixed stipend to the medical officer, the following items:

(Dr.) To amount received from private practice .. £369 3s. 9d.
(Cr.) Dr. Green's share of private practice .. .. £173 2s. 11½d.

On the other hand, the Stourport Amalgamated Friendly Societies' and General Medical Aid Association last year had a balance on the wrong side. Another association, that at Gainsborough, apart from a mortgage on the buildings, is £300 in debt. These facts are enough to show that profits are made, and that in several of them they were made and put by at a time when the medical officers were exposed to great strain and overwork. There are, however, other sources of income, sometimes large, such as entrance fees, donations, proceeds of concerts and other entertainments &c. The savings are sometimes considerable; but on the whole it cannot be said that the profits, even to the associations, are at all great when the enormous amount of work done and the desirability of maintaining a reserve fund are considered.

Abuse of the Associations by unsuitable persons and classes.

According to the summary of the answers to our seventh question—viz., "To what extent do you attend patients able to pay a private practitioner? State generally the class to which the patients belong whom you attend as medical officer of the association"—it appears that 55 out of 84 of the gentlemen who have responded aver that a certain proportion of the patients are able to pay a private practitioner. In regard to two places the witnesses assert that *all* the members are able to pay. Even wealthy patients are by no means excluded. One of our ablest lay witnesses was an ex-mayor of his town who did not hesitate to say that he took his medical attendance on the terms of 4s. a year; and one of our medical witnesses told us that he attended men worth £25,000 or £30,000. He was empowered by a brother practitioner in his town to say to the committee, "One of *your* patients sent for me last night in his carriage." Another indication of good means in some of the members of these associations is afforded by the evidence in regard to *consultations*. The fees of the consultant in nearly all instances are paid by the patient, and cases have been cited in which fees of three, four, ten, twenty and even thirty guineas have been paid, the consultants being of the highest positions in their various neighbourhoods.

Bonds in Restraint of Practice.

A bond not to practise within a certain number of years after leaving the associations on condition of a fine or otherwise was required in thirty-seven cases and not required in thirty-eight. One medical witness suggested that it would be well for the Medical Council to declare it "infamous" in a medical man to sign a bond in respect of unregistered societies or associations which include or admit unregistered societies, as some do after they have been registered themselves. His view was that if the medical officers had a free hand and three or four of them set up in succession it would kill the association by inanition, forgetting perhaps that it might have the same effect on established private practitioners. Another witness thought it unprofessional in a registered medical man to sign such a bond whether the association were registered or not and was of opinion that the Council should forbid it.

Systematic Canvassing.

This undoubtedly exists in insidious forms in many associations; often where it does not exist in the association itself it exists in the constituent societies.

Independence of Medical Officers.

Your committee have made inquiries into the question of the independence of the medical officers in respect of granting or withholding certificates. On the whole the medical officers testify that they are free to do what they think right in this matter and the lay members point out that it is to the interest of the associations and of the friendly societies which compose them to uphold the perfect independence of the medical officers in this respect. One ex-medical officer, however, who appeared before us had received a letter giving notice of his dismissal and assigning as a reason his refusal to give a certificate of illness to a member of the committee, whom he *bond fide* did not think ill enough for this. Two other witnesses said their refusal to give certificates had given such offence that they had ceased to refuse them and now gave them whenever asked.

Summary of the Evils.

The evils arising from these associations may be thus summarised: 1. The excessive number of patients to be attended in the case of many of the associations causes great exhaustion and disheartenment in the medical officer. 2. Where there are so many patients it is impossible for them all to obtain adequate treatment from an overworked medical man. 3. In many cases the Medical Aid Association is used by persons whose means and social position give them no claim to be treated on inadequate terms. 4. The medical officer is at times placed in a position of great dependence, inconsistent with the conscientious performance of his duties.

The Conclusions of the Committee.

Your committee, being of opinion that it is in the interest of the Medical Aid Associations no less than that of the medical profession to find a remedy for the evils found to exist, would look partly to the action of the General Medical Council and partly to the coöperation of the friendly societies to secure the end in view. The committee, therefore, venture to submit the following recommendations as proper to be accepted by the Council:

I. That the rules already laid down by the Council as to "covering" unqualified assistants do apply to medical officers of medical aid associations which employ unqualified assistants.

II. That the Council do record its opinion that a medical practitioner is acting in a reprehensible manner—

(1) If he holds a medical aid appointment the duties of which are so onerous that he cannot do justice to the sick under his care.

(2) If he consents to give certificates where in his opinion they are not justifiable on medical grounds.

(3) If he accepts or retains employment by an association in which canvassing is used to attract members.

III. That the President be requested to transmit a copy of this report to the executive committee of each of the medical aid associations, with a communication calling their attention to the evils therein referred to, and inviting them to take action for their removal—

(1) By taking steps to exclude persons obviously unfit to be provided for on inadequate terms, to the detriment of those of their members who may fairly claim to be attended on such terms by the medical profession.

(2) By limiting the proportion of persons to be attended by one medical man to something like the numbers suggested in the Guide-rules of the Friendly Societies' Medical Alliance.

(3) By securing to the medical officer that perfect freedom of judgment and action which are essential for the satisfactory and conscientious discharge of his duties.

DISCUSSION ON THE REPORT.

Statement by the Chairman.

Dr. GLOVER, chairman of the committee, introduced the discussion with a statement as to the general nature of the inquiry conducted by the committee, its difficulties and its results. He explained that the associations falling within the scope of the inquiry had an aggregate membership of about a quarter of a million. In addition to these associa-

tions there were two or three great companies—life assurance companies—which carried on medical aid departments. He did not feel disposed to pass any particular judgment upon them, but he might say that there were in the country about 1000 registered medical men serving these companies in their medical aid departments, acting as referees in regard to assurance business, but discharging also the duties of medical men to those who joined the medical aid departments. The committee were assured by the representatives of these companies that they made no profit out of this business and that it was rather a charitable or philanthropic thing if anybody could think that of an insurance office. Some of the medical men, however, admitted that they made considerable incomes. One gentleman said that he made £400 a year as the medical officer of an insurance company with a medical aid department. These companies, he might say, had a membership of about 90,000. Discussing first the formation of medical aid associations, Dr. Glover said they were the result of voluntary combination amongst friendly societies. They began, in the first instance, with a few societies and then every effort was made to get the others into the net. Some of the associations did not content themselves with including merely friendly societies. In the case of the Stourport Medical Aid Association a general canvass was made of the town and nearly the whole population joined. Dealing next with the position of the medical officers Dr. Glover explained that the work of the associations was managed by a committee. It had been remarked that the medical officers were not on the committee, but there was a good deal of difference upon that point. The evidence showed that the work of the medical officers amounted to overwork and that the remuneration was not at all proportionate to the work done. The unsatisfactoriness of the remuneration was proved by the short stay medical men made with these associations. The average was only about three years. Not only did the medical officer attend a great many people, but he attended people in very comfortable circumstances who could well afford to pay fees in the ordinary way. His position was a very dependent one. He could not, for example, order medicine from a wholesale druggist. He could not order an instrument which might be urgently required without the consent of the committee, and in still more serious ways his independence was interfered with. He could not even write out a certificate without the risk of offending the members of the committee. It was common for the supporters of these associations to say that they gave the medical man a very much better position than that of an assistant. It might be true that he received a little more remuneration, but the responsibility of a principal was placed upon him. He had not the advantage of working with the guidance and assistance of another experienced medical man. The inquiry, he was glad to say, had shown that canvassing was not so prevalent as Dr. Phillips supposed. Many of the associations distinctly repudiated canvassing altogether. As to the financial position of medical aid associations generally he would say that it was not particularly prosperous. Looking at the matter from the public point of view, it surely could not be for the public good that medical men should be overworked as they were in connexion with these associations. They received an enormous number of patients every day. Some of these were in very comfortable circumstances, and there was therefore a strong temptation to give a little more attention to one class of patients than to another. Time after time the committee had received strong complaints of want of leisure for reading and keeping up with medical science, and for diagnosing difficult cases. As to the recommendations of the committee, they represented an honest attempt to remove proved evils and much dissatisfaction. They were conceived in no spirit of animosity to the friendly societies of the country, but in the belief that they would if heartily adopted lessen the friction between the medical profession and these associations, which could not be interested in damaging the medical profession or in throwing its members out of sympathy and touch with their own medical officers. They made no threat and they introduced no new offence into the Council or into the ethics of the profession, and he might add that they enjoyed the entire approval of the solicitor of the Council. In conclusion he moved that the Council go into committee to consider the recommendations contained in the report.

This motion, after being seconded by Mr. TEALE, was agreed to and the Council went into committee.

Consideration of the Report in Committee.

Dr. GLOVER, seconded by Mr. WHEELHOUSE, moved the first recommendation.

Mr. BRYANT suggested that the actual rules might be incorporated in the recommendation.

Dr. GLOVER said he was quite ready to adopt the suggestion, and the recommendation thus amended was agreed to.

"Acting in a Reprehensible Manner."

Dr. GLOVER then moved the adoption of the second recommendation as given above.

Mr. TEALE, in seconding it, said the Council must clearly understand that no new departure was proposed. This expression of opinion was merely intended for the guidance of medical men. They must remember that they had been appealed to from two sides—that of the medical profession and that of the associations themselves—and he fully believed that an opinion of this kind would have good effect.

Sir WILLIAM TURNER submitted that this recommendation stood upon an entirely different footing from the first. The term "reprehensible" was not in the Medical Act. It was a term which had no legal meaning so far as the Council were concerned. The term "infamous conduct" had a legal meaning and they had been in the habit of acting upon it. Supposing they said that A. B. had acted in a reprehensible manner, what were they to do to him? Would it affect his position in any way? Would it have any deterrent influence upon him? He must confess, with all deference to the committee, that this seemed to him a somewhat lame and impotent conclusion to come to. Moreover this was a very wide question. It did not limit itself to medical aid appointments, it extended to all appointments. He could not help thinking that the committee in these recommendations had looked at the question merely from the point of view of the medical profession and had not considered the various economic matters which had an important bearing upon it.

Sir JOHN SIMON agreed with what had been said by Sir William Turner. He saw the greatest difficulty in adopting these recommendations. He did not say a word about the principle of them; but if this Council was to intervene for the guidance of medical practitioners he thought it was hardly requisite to do so for such simple matters as these. What they proposed was to tell a member of a learned profession that he was "reprehensible" if he undertook what he could not perform. Again, they proposed to tell him that he was "reprehensible" if he signed certificates which, in his opinion, were not justifiable upon medical grounds—in other words, if he lied. He accepted the principle with all his heart, but he did not think they need write it upon the walls. In the same way, as to canvassing, he accepted the principle of the recommendation—it was a most innocent principle; but he did not accept that it was the business of the Council to record its opinion upon this question more than upon a thousand other minor questions of professional ethics or etiquette. The third recommendation was in effect that they should interfere in a matter of commercial negotiation between individual members of the profession and the public. That was not the business of the Council. Their business was statutory business. They had nothing to do with these commercial matters, which could be dealt with by other bodies outside the Council. He hoped the Council would see here a new departure and one calculated to land it in conflict, which would seriously interfere with its usefulness. He looked upon the second recommendation as frivolous and upon the third as meddlesome, and he could not vote for them.

Dr. WILKS took the same view as Sir John Simon. He thought the Council had nothing to do with these matters. The gentlemen who introduced them had mistaken altogether the functions of the Council, and for that matter he did not think these gentlemen would be satisfied with what the committee proposed

Dr. LEECH said that no one could read the report without feeing that the public suffered by this system and he considered it the duty of the Council to take some notice of it. He regarded the proposal of the committee as a word of advice rather than of warning.

Mr. WHEELHOUSE said he looked upon this as not a professional but a public question. The committee had had before them men who said that the work they were doing was detrimental to them and to the public, and men who admitted that they employed medical men to do work which it was quite impossible for them to do and in attempting to do which they inflicted a manifest injustice upon those under their care. It was unquestionably the duty of the Council, so far as it could, to see that the duties of those whom it placed upon the Medical Register were fulfilled in a conscien-

tious and reasonable manner. Man after man came before the committee and said, "Make this conduct infamous, and then we shall be able to say to the committees, We cannot do it, because we are not allowed by the Medical Council to do it."

Mr. BRUDENELL CARTER reminded the Council that the matter was brought before them on the distinct allegation that this was a system of extensive covering, and in these circumstances the Council could do nothing else than investigate the allegations. If it was shown that there was no covering and the matter was one lying beyond their province, he saw no reason why they should not say so.

Dr. BRUCE submitted that they were acting within their statutory duties in respect that the Council had to deal with infamous conduct on the part of medical men. It was evident they must consider the subject of infamous conduct before it had crystallised quite into that particular phrase. Expressing a pious opinion, he had no hesitation in saying that every one of these three things characterised as "reprehensible" was in reality infamous conduct in a professional respect. If the Council did not protect the public in this matter, he did not know any body which could protect it.

Sir WALTER FOSTER said the present position depended upon individual members of the profession not acting up to the honourable calling to which they belonged. That was to say, the men had not the moral backbone to say, "I cannot do this work properly and must have assistance." He was sorry to find this state of things and he desired to alter it, but he believed that nobody in the medical profession at present, short of the whole medical profession, could ever cure the evil. The thing depended on the men themselves and they must begin to cure it and not get into the habit of trying to persuade this body or the other to come to their assistance. At the same time he did not say that this Council could do nothing. They could declare, as they had done, that the employment of unqualified assistants by these associations must be stopped. That was one good thing. Without adopting all the regulations and suggestions put forward by the committee, he thought they might put the pith of them into a statement as to what they considered the defects and dangers of the associations both to the public and to the profession.

Sir PHILIP SMYLY thought the medical man's conscience was already sufficiently burdened without these three resolutions and said he did not think it was a very dignified position for the Council to take up—that of barking when they could not bite.

Dr. GLOVER, replying to Sir John Simon, said there was no suggestion of interfering with contracts. The committee, in their report and recommendations, respected the right of contract and combination. What they were dealing with was not a question of contract but one of conduct. The Council had to see to medical education, but they had also to see that members of the medical profession deported themselves in a way worthy of the traditions and ethics of the profession.

Dr. MCVAIL thought the Council might at least warn men holding these appointments of the special dangers which beset them.

Sir DYCE DUCKWORTH intimated his intention to vote against the recommendation, which he conceived to be beyond the powers of the Council. If men chose to enter these employments they must take the consequences.

The vote was then taken, when seven members voted for the recommendation and eighteen against it. The recommendation was accordingly rejected.

"Attention to the Evils."

Dr. GLOVER, seconded by Dr. BRUCE, moved the third recommendation.

Sir WILLIAM TURNER suggested that they should simply request the President to transmit a copy of the report to the executive committee of each of the Medical Aid Associations calling their attention to the evils therein referred to and inviting them to take action for their removal.

Sir JOHN SIMON said they had no *locus standi* with the associations.

Dr. D. MACALISTER pointed out that fifty-one associations had addressed the Council and asked them to give the matter their consideration.

After some further discussion the Council agreed, without a vote being taken, "That the President be requested to transmit a copy of this report to the executive committee of each of the Medical Aid Associations."

Dr. GLOVER moved to add the words, "with a communication calling their attention to the evils therein referred to."

The Council voted—for the addition 9 members, against it 15.

No further attempt was made to press the remaining portion of the committee's recommendation and the Council accordingly resumed.

The Opinion of the Council.

Sir WALTER FOSTER then moved: "That this Council is of opinion that the system under which the work of Medical Aid Associations is conducted is liable to become injurious both to the public and to the profession, inasmuch as it encourages medical men to undertake duties which are so onerous that they cannot do justice to the sick under their care and to accept appointments in which they are not free to exercise full liberty and in which they are compromised, in a professional sense, by the canvassing used by some associations to attract members."

Dr. MCVAIL seconded this resolution.

Twelve members voted for it and thirteen members against it.

The Action of the Council.

Mr. BRUDENELL CARTER moved: "That the investigation by the committee of the question of the conduct of Medical Aid Associations has not disclosed the prevalence of any offences with which it falls within the statutory province of the Council to deal, but that the report of the committee with reference to certain evils which it describes cannot fail to be instructive to the executive committees and medical officers concerned and that the President be requested to transmit copies of the report to these committees and officers."

Dr. BRUCE seconded the resolution, which, on being put to the Council, was carried by 14 votes to 5.

The Council thereafter adjourned.

SATURDAY.

Sir RICHARD QUAIN, President, in the chair.

THE REPORT ON MEDICAL AID ASSOCIATIONS.

Communications with the Associations.

Some conversation arose respecting the wording of the resolution passed on Friday in which the President was requested to transmit copies of the report of the Medical Aid Associations Committee to the executive committees and medical officers concerned. The report not having been entirely approved by the Council, it was objected by several members that its transmission as received from the committee would give rise to misunderstanding, and various suggestions were made with the view of guarding against this by directing the attention of the recipients to what the Council had actually done in the matter. The President said a covering letter to be sent with the report had been drafted as follows: "The President of the General Medical Council has been requested by the Council to transmit to (such and such a body) a copy of the report of the committee appointed by the Council on Nov. 22nd, 1892, for the consideration of the question of Medical Aid Associations. Appended to the report are the resolutions passed by the Council in reference thereto. The President calls special attention to the resolution marked I. and to the rules of the Council therein set forth." This was regarded as satisfactory and the subject dropped.

Sir Philip Smyly's Appointment.

The REGISTRAR said Sir Philip Smyly's appointment was returned as for one year from Feb. 4th, 1893. That morning he received an official letter from the Royal College of Surgeons in Ireland stating that the return was erroneous, it being the intention of the President and College that the period of office of Sir Philip Smyly should be for the residue of the term for which Mr. Macnamara had been elected—that was until Feb. 16th, 1894.

The PRESIDENT said the Council could not recognise the matter unless they had a formal vote of the Royal College of Surgeons of Ireland rescinding the former one.

THE REPORT OF THE EDUCATION COMMITTEE.

Regulations of the Licensing Bodies.

The Council then proceeded to consider the report of the Education Committee, which was presented under the following resolution: "That medical authorities be requested at the end of the year 1892 to forward to the Registrar of the Council a copy of the regulations, in the form in which they stand, under which they confer qualifications in medicine, surgery and midwifery that admit to the Medical Register;

and that the Education Committee be requested to report to the Council at its following session as to whether the regulations of the several authorities are in accordance with the requirements and recommendations of the Council." The committee state that the order in which the requirements and recommendations in respect of professional education occurred in the minutes was not satisfactory, as they were not presented in natural sequence. They therefore rearranged them, without, of course, any verbal change. The report is a long document, and we present a summary of it. Referring to the first four resolutions, the committee say:

The Five Years' Course.

"In the main the resolutions of the Council as regards the five years' curriculum have been generally accepted and acted upon. Although the Statutes of the University of Oxford do not prescribe any definite number of years of study, the committee have been assured that in practice the period of study cannot be less than and often exceeds five years. The regulations of the Conjoint Board in Ireland (Royal Colleges of Physicians and Surgeons) admit candidates to the Final Examination at the end of the fifth winter session—i.e., after four and a half years' study. It is recommended that the attention of this Board be drawn to this point in their regulations."

Regulations for Science Subjects.

The regulations of the Conjoint Board in England, of the Royal College of Physicians of London and of the Society of Apothecaries of London accept as professional study attendance on courses of chemistry, physics, practical pharmacy and elementary biology before registration. The principle involved was discussed by the Council and was finally disposed of on June 2nd, 1891, when the following motion, proposed by Dr. Heron Watson and seconded by Sir William Turner, was met by the previous question, which was carried: "When in the course of his previous studies in a University of the United Kingdom or elsewhere, or in any school of science or of medicine or teaching institution recognised for the purpose by any of the medical authorities and approved of by the General Medical Council, a candidate shall have attended a course or courses in one or all of the departments of physics, chemistry or biology, such attendance shall be held as qualifying for his diploma in medicine. Provided always that the examination in such subject or subjects is passed before the candidate commences his medical studies and is of such standard as shall suffice to exonerate him from all further examination in such subjects; provided also that he shall not on that account be held to have completed the first of his five years of medical study."

(a) The proposal that the course of professional study after registration should occupy at least five years was accepted by the Council "conditionally" on the subjects detailed in Resolution 2 being included in it. Physics, Chemistry, Elementary Biology and Pharmacy are contained in the list of subjects which "must" be studied "between the date of registration as a medical student and the date of final examination for any diploma." The regulations of the English Conjoint Board and those of the Society of Apothecaries as regards these subjects are evidently not in accord with the resolutions and are opposed to the condition on which the Council adopted the important resolution to extend the course of study from four to five years. The committee recommend that the attention of these bodies be drawn to this important departure from the resolutions of the Council. It is also recommended that the attention of the Scottish Conjoint Board be directed to the exception permitted in Regulation 4 of Chapter 1, which appears to be contrary to Resolution 2.

The Ordinances of the Scottish Universities are not in accordance with Resolutions 1 and 2. Section X. of these Ordinances provides that men who have studied physics, chemistry, botany, biology and zoology may count such attendance on such courses not only as qualifying for admission to examination, but also as the first *annus medicus*. The committee would call the attention of the Council to the provisions of this Ordinance, for were similar exceptions permitted by the bodies at large the principle of the five years' scheme would be destroyed. If, in reading the section, the words "Board of Examiners of such and such a body" be substituted for "University Court," "University of Edinburgh" and "Senate," it is evident that, within the terms of such a regulation, a system could be organised by which the last year of school work might be made to stand in the place of the first year of professional education. The section cannot be regarded otherwise than as the establishment of a dangerous precedent. The committee feel this so strongly that they advise the Council to make an earnest representation to the Commissioners requesting reconsideration of the section in the interests of medical education.

Requirements of the Council.

(A) That the requirements of the Council—that is, such rules as the Council is prepared, if it sees cause, to enforce by representation to the Privy Council—in regard to professional education are as follows:—

With regard to course of study and examinations which persons desirous of qualifying for the medical profession shall go through in order that they may become possessed of the knowledge and skill requisite for the efficient practice of medicine, surgery and midwifery, the Council requires that:—

I. Every medical student shall be registered in the manner and under the conditions prescribed by the General Medical Council.

II. With the exceptions provided for under Section IV. (*a*, *b*), the period of professional study between the date of registration as a medical student and the date of the final examination for any diploma which entitles its holder to be registered under the Medical Acts shall be a period of *bonâ fide* study during not less than five years.

III. In every course of professional study and examinations the following subjects must be contained: Physics, including the elementary mechanics of solids and fluids and the rudiments of heat, light and electricity; chemistry, including the principles of the science and the details which bear on the study of medicine; elementary biology; anatomy; physiology; materia medica and pharmacy; pathology; therapeutics; medicine, including medical anatomy and clinical medicine; surgery, including surgical anatomy and clinical surgery; midwifery, including diseases peculiar to women and to new-born children; theory and practice of vaccination; forensic medicine; hygiene; mental disease.

IV. The first four of the five years shall be passed at a school or schools of medicine recognised by any of the licensing bodies enumerated in Schedule A of the Medical Act (1858), provided:

(*a*) That the first year may be passed at a University or teaching institution recognised by any of the licensing bodies where the subjects of physics, chemistry and biology are taught.

(*b*) That graduates in arts or science of any University recognised by the Medical Council who shall have spent a year in the study of physics, chemistry and biology, and have passed an examination in these subjects for the degrees in question, shall be held to have completed the first of the five years of medical study.

Recommendations to the Examining Bodies.

I. The regulations requiring attendance on systematic courses of lectures need not require attendance on more than three lectures weekly in any one course.

II. Due time should be set aside for practical work in the various subjects. By a practical course is understood one in which work is done by the student himself, under the direction of a duly qualified teacher.

III. The regulations of the examining bodies and of the schools should be so framed that attendance on systematic courses may be concluded at the end of the fourth year of study, so as to permit of the student devoting the fifth year to clinical work.

IV. In order to promote a practical system of clinical teaching the regulations of the examining bodies should specify as one of their requirements "hospital practice with clinical instruction." Ample time should be set aside for hospital work, and means should be taken to ascertain regularity of attendance in the wards and out-patient departments. Every candidate for the Final Professional Examination at the end of the fifth year should be required to give evidence that he has had sufficient opportunities of practical study. This resolution relates to such offices as the following: Clinical medical clerkship and surgical dressership—either for in- or out-patients; obstetrical clerkship; post-mortem clerkship.

V. The fifth year should be devoted to clinical work at one or more public hospitals or dispensaries—British or foreign—recognised by any of the medical authorities mentioned in Schedule A of the Medical Act, 1858, provided that of this year six months may be passed as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities.

Communications to Various Bodies.

(B) That the President of the Council be requested to communicate with the Commissioners appointed under the Universities (Scotland) Act, 1889, calling their attention to the effect of Section X. of their Ordinance for degrees in medicine, and urging that it be reconsidered.

(C) That the attention of the Conjoint Board in England, of the Royal College of Physicians of London and of the Society of Apothecaries be drawn to their regulations by which the study of physics, chemistry, botany and pharmacy previous to registration is recognised.

(D) That the attention of the Conjoint Board in Scotland be drawn to the effect of their Regulation 4, cap. 1, by which the study of physics, elementary biology, chemistry, practical chemistry and practical pharmacy previous to registration is recognised.

(E) That the attention of the Royal College of Physicians of London be called to the effect of their by-laws and regulations for admission to the Membership of their college, by which it appears that a qualifying examination in surgery and midwifery is not in all cases enforced.

(F) That the attention of the Conjoint Board in Ireland (Royal Colleges of Physicians and Surgeons) be drawn to their regulations by which candidates may present themselves for the final examination after four and a half years of study.

(G) That the attention of the University of Cambridge be drawn to the imperfect provision in their regulations for enforcing the study of insanity.

(H) That the medical authorities be advised to prepare, on or before Jan. 1st, 1896, lists of medical practitioners whom they have recognised, or propose to recognise, as possessing opportunities of imparting practical knowledge to students during six months of the fifth year of medical study.

Conclusion of the Committee.

The committee are of opinion that the adoption and confirmation of the resolutions in the form submitted to the Council, or with such modification as the Council may see fit to make, will ensure the maintenance of a sufficiently definite system of medical education in Great Britain and Ireland, the working of which should not be interfered with for some considerable time.

DISCUSSION ON THE REPORT OF THE EDUCATION COMMITTEE.

Curriculum of the Conjoint Board in Ireland.

Dr. BATTY TUKE, chairman of the committee, concluded an explanatory statement of some length by moving that the Council confirm its requirements in regard to professional education as set forth by the Education Committee in their report, beginning with Clause A.

Dr. MACALISTER seconded.

Dr. ATTHILL said he had to point out that the curriculum of the College of Surgeons of Ireland in their joint scheme with the Apothecaries' Hall was not in accordance with the requirements of the Council and regretted to have to add that there was a manifest tendency in this scheme to lower the standard of medical education. They did not

embody in their curriculum any provision for the teaching of biology or mental diseases or instruction in vaccination, and he pointed out that the examination conducted by these bodies was inefficient, this being borne out by the fact that every candidate who presented himself during 1892 was passed, the same having been the case previously. He urged the Council to reconsider the terms of that scheme and to take steps to prevent deterioration of medical education in Ireland, which was seriously threatened, and which the interposition of the Council alone could prevent. The examinations conducted by this body had escaped inspection by the Council and no provision had been made to remedy this.

Sir P. SMYLY said that, if Dr. Atthill was allowed to go on, Dr. Collins and he would require three or four hours to comment on the subject.

The PRESIDENT ruled that Dr. Atthill was out of order, there being a distinct motion before the Council.

The Registration of Students.

Mr. CARTER asked whether the first requirement was one which the Council was in a position to enforce.

Sir J. SIMON said the Council was not in a position to insist on the registration of students, but he thought that where a particular body positively set itself to resist fixing the date at which the students commenced their work it would be the duty of the Council to take some action.

Sir W. TURNER asked whether, in asking the Council to adopt this first requirement, the committee had not gone considerably beyond its reference. He thought they should pause before accepting a new position which the committee was now asking them to take up.

Dr. HAUGHTON warned the Council not to take too high a hand in this matter or they might be engaged in still further lawsuits.

Sir W. TURNER contended that the whole matter that the committee had to deal with under their reference was contained in the paragraphs B to H in the recommendations set forth above.

Dr. BRUCE proposed that Clause A be postponed until the others were considered.

Dr. MCVAIL opposed the motion. Nothing could be more important than that the Council should state with a certain voice its opinion as to the necessity and importance of registration. This was an attempt to shelve the expression by the Council of a definite opinion that the date of the students commencing study should be registered.

Sir W. TURNER said the Council had already stated its opinion about registration, but the new point which was raised by the committee was that if a body admitted to examination a person who had not been on the students' register for five years that body was to be reported to the Privy Council. In opposing Dr. Tuke's motion he had no desire to minimise registration, but simply wished to show that there were difficulties in carrying out a universal rule that every candidate who presented himself for final examination should have been on the Register for five years. The Council was in many respects an Imperial body, more especially since the Act of 1886, and they should not make hard-and-fast rules which would prevent their Colonial fellow subjects and foreigners from coming to this country.

Dr. BATTY TUKE said the action of Sir W. Turner was that of an old Parliamentary hand in burking consideration of an important question which he did not like to face. He (Dr. Tuke) would rather see the thing definitely decided upon by the Council.

On a vote being taken it was decided by a large majority to pass from Clause A to the consideration of the other clauses.

Dr. BATTY TUKE moved the adoption of Clause B, which was seconded by Dr. D. MACALISTER.

Dr. HERON WATSON said that as one of the Commissioners under the Scottish Universities Act he had personally not the least objection to this clause if it could be productive of the smallest possible effect, but he did not think it could be. The ordinance was practically the same as an Act of Parliament and could only be altered by Parliament.

Sir W. TURNER also stated that he had no objection to the transmission of the section. They would receive their answer and then they would be able to consider the next step they should take. The Commissioners looked at the matter simply as one affecting the internal concerns of the Scottish Universities. It was required that the courses must be academic and not those of the schoolboy.

The motion was then agreed to.

Dr. BATTY TUKE having moved the adoption of Clause C, The Council adjourned until Monday.

MONDAY, MAY 29TH.

Sir RICHARD QUAIN, President, in the chair.

THE REPORT OF THE EDUCATION COMMITTEE.

The Study of Chemistry, Biology and Physics.

The Council resumed consideration of the proposal for the adoption of Clause C of the recommendations in the report of the Education Committee on the regulations of the licensing bodies under which they grant qualifications to practise medicine, surgery and midwifery, as given above in the proceedings of Saturday.

Mr. BRYANT said that, as the representative of one of the two bodies which together formed the Conjoint Examining Board for England, he supported the proposal, and he did so because he hoped that when this question was referred to the joint committee of the two colleges that committee would be able to prove to the Council that the action which they had taken in this matter was not only highly beneficial to the students who might apply under it, but that it was in no way inconsistent with the curriculum laid down by the Council. They simply recognised the good work done in good institutions before men began their medical curriculum and looked upon it as preliminary. The Scottish Universities allowed a year during the five years' curriculum for the study of these subjects and in that sense the English Board considered their regulations were far in advance of those of other corporations.

Sir DYCE DUCKWORTH, speaking for the College of Physicians of London, said this matter had been very carefully considered by the Committee of Management and they intended to continue their sanction to the study of physics, chemistry and biology at recognised institutions before a student was allowed to register. They even proposed to go further and to allow students who had studied at these institutions to come up for examination in these subjects before their registration or entrance into any medical school. This would relieve the first two years of the student's five years' medical curriculum from studies which were not strictly medical, so that from the beginning of the curriculum they would be able to devote themselves to the proper medical subjects. He had no objection to the resolution being carried.

Mr. CARTER, speaking on behalf of the Society of Apothecaries, said he was precisely in the same position as Sir Dyce Duckworth. Under the regulations of that body it was permitted that these subjects should be studied prior to registration, but that the examination in them was to be taken at present subsequently to registration. On receiving this recommendation he communicated with the clerk of the Society of Apothecaries, saying that if there were any observations that he wished to make he should be happy to lay them before the Council, but that his own impression was that the motion should be carried as it stood, and that there should be before the next meeting of the Council a reply from the Society to the recommendation contained in this section.

The clause was agreed to.

Pre-registration Subjects.

Dr. BATTY TUKE then moved the adoption of Clause D, which was seconded by Dr. MACALISTER.

Dr. HERON WATSON said that, as representing one of the bodies connected with the triple qualification in Scotland, he was quite sure the committee of management of that qualification would have much pleasure in receiving from the Medical Council any suggestions that might occur to them with reference to this subject. They were concussed into their position by the action of the Examining Board in England, and if the English Board could only see its way to adopt the absolute wording of the Medical Council's requirements probably the Scottish Boards would follow the same course.

The clause was agreed to.

The Membership of the College of Physicians of London.

Dr. BATTY TUKE then moved the adoption of Clause E.

Sir DYCE DUCKWORTH said the qualification of Membership of the College of Physicians of London had been given to an exceedingly small number of persons in the course of the last twenty-five years, and these were qualified in all respects. Since the passing of the Medical Act of 1886 some doubts occurred in the minds of the authorities of the College

on the subject. The matter was being considered and new by-laws would be made without delay.

The clause was agreed to.

Irish Examining Boards.

Dr. TUKE moved the following new clause (G): "That the attention of the Conjoint Board of the Royal College of Surgeons in Ireland and the Apothecaries' Hall in Dublin be called to the fact that the study of physics and elementary biology is not included in the preliminary study; the study of mental diseases is not required as a subject of examination."

Dr. MACALISTER seconded and the clause was agreed to.

Proposed Revival of Pupilage.

Clause H as printed in the report became Clause I, and was altered to read as follows: "That the medical authorities be recommended to prepare by Jan. 1st, 1896, lists of medical practitioners whom they have recognised or propose to recognise as possessing opportunities of imparting practical knowledge to students during six months of the fifth year of medical study."

Sir W. TURNER thought the proposal an eminently unpractical one. It might lead to the discarding of some of the very best men. They must leave something to the discretion of the medical authorities in a matter of this kind.

Dr. HERON WATSON objected entirely to the recommendation.

Mr. CARTER supported it. General practitioners would not make a great rush to this register, but such men as thought they had opportunities of giving the required instruction and whose circumstances were such that the presence of pupils might be advantageous to them would be likely to apply and would submit evidence to the authorities such as they might require regarding the nature and extent of the opportunities they had to offer to pupils. It appeared to him it was only by some authorised list of that kind that a proper instruction could be secured for any six months.

Sir DYCE DUCKWORTH opposed the proposition, which he thought would be absolutely impossible to carry out.

Dr. MCVAIL and Dr. HAUGHTON supported the view of Sir Dyce Duckworth.

The PRESIDENT, in closing the discussion, observed that somebody must decide who was competent to give instruction and it would be a simple matter to keep a register of those who applied and who were satisfactory.

On a division the clause was carried by 13 against 12.

Sir J. SIMON pointed out that the resolution of the Council requiring a student to have six months' practical training under a practitioner was passed on the distinct understanding that there would be a selection of the medical practitioners.

THE STUDENTS' REGISTER.

Automatic Registration.

Dr. HAUGHTON observed that if the Council would express to the authorities of the University of Dublin their strong sense of the importance, in the interest of medical education, of every student appearing on the register he would undertake to provide a self-acting machinery by which the students should be registered by the College authorities without knowing that they were registered.

Sir W. TURNER moved: "That the authorities of the University of Dublin be requested to take steps to enrol the students of that University on the Medical Students' Register."

The motion was agreed to.

Exceptions.

The consideration of Clause A (paragraph 1) of the committee's report, which was postponed on Saturday, was then proceeded with.

Dr. BATTY TUKE moved to add the following words to the paragraph: "subject to such exceptions as the Council may from time to time permit," which he thought would meet the difficulty which was feared.

Mr. CARTER said the power of appeal to the Privy Council was limited to matters which had reference to the course of study and the examinations. If they were to propose to haul any body before the Privy Council which refused registration they would only be laughed at. He moved as an amendment: "That the date of the commencement of medical study should be fixed, wherever possible, by the registration of each medical student in the manner and under the conditions prescribed by the Medical Council."

Sir J. SIMON maintained that the so-called exceptional cases were entirely provided for in the standing resolutions, and he proposed that the paragraph should read thus: "Subject to such exceptions as the Council may from time to time allow, every medical student shall at the commencement of his studentship be registered in the manner and under the conditions prescribed by the standing resolutions of the Council."

This was accepted by Dr. Tuke and Mr. Carter and became the finding of the Council.

Calendar Years v. *Medical Years.*

Dr. CAMERON asked for a definition of the term "five years," whether it was five calendar years or five medical years.

Sir W. TURNER said his reading of it was "five medical years"—that was to say, the winter and summer sessions.

Mr. BRYANT said that by the fifth year they meant twelve months.

Dr. MCVAIL was of opinion that no course should be taken in the fifth year that was merely systematic and that the fifth year should be twelve months of pure clinical work.

Sir W. TURNER said a student at Edinburgh University beginning in October could take his degree on Aug. 1st, which was at the beginning of the autumn vacation and not at the end of it. He did not think that that University was likely to alter its practice in that respect.

The other paragraphs of Clause A and the other recommendations of the committee left over on Saturday were then agreed to.

PRELIMINARY EXAMINATIONS.

The next business was the consideration of the report of the Education Committee on preliminary examinations, the recommendations appended to which were as follows:

I. That note marked (*) to the regulations of the Council ("Provided that a university examination required for graduation in arts, wherein the specified subjects of general education are included, may be recognised for the purpose of registration") read as follows: "Provided that a certificate of having passed a university examination required for graduation in arts, or a senior or higher local university examination, or a senior grade examination of the Intermediate Education Board of Ireland, or the leaving certificate examination (honours and higher grade) of the Scottish Education Department, wherein the specified subjects of general education are included, may be recognised for the purpose of registration."

II. That to the examinations in Section II. of the list of bodies whose examinations in general education are recognised by the Medical Council as qualifying for registration as medical or dental student be appended a note: "The Council has recommended that these examinations be discontinued." The examinations affected by this recommendation are those conducted by the Apothecaries' Society of London and by the Royal College of Physicians and Surgeons in Ireland.

III. That the Registrar be directed to communicate with the bodies enumerated under Section IV., requesting that, by the end of 1893, all documents bearing on the subject of their preliminary examinations be forwarded to him, and that the Education Committee report thereon to the Council.

The first recommendation was adopted without discussion.

Dr. BATTY TUKE, in moving the adoption of the second recommendation, said that the Council had all along been endeavouring to maintain and to raise the standard of the preliminary examinations and it had ultimately adopted a system which it believed would have that effect. One of the leading principles of that system was that all preliminary examinations should be conducted by universities or by purely educational bodies. Without impugning in any way the character of the various other bodies which had held such examinations, the Council simply recommended that their examinations should be discontinued and the large majority of these bodies had done so. Only two bodies did not comply: the Royal College of Physicians and Surgeons in Ireland and the Apothecaries' Society of London. The committee simply made the recommendation on the broad general principle which actuated the Council in dealing with the matter.

Dr. MACALISTER seconded.

Mr. CARTER said that when the resolution of the Council was passed last November that the abandonment of these examinations would be for the public good the authorities of the Society of Apothecaries consulted him and asked him on what grounds that conclusion had been arrived at. He told them he had heard no grounds set forth in the Council except that it was better that the examination in general knowledge should be conducted by the ordinary educational authorities of the country, or, in other words, that the proper way of estimating the work of schoolmasters was to set other schoolmasters to estimate it. That seemed to him to be a very disputable proposition. As far as his judgment was concerned it was an entirely erroneous one, and in the great profession of the law so much care had been taken to guard against it that the Incorporated Law Society had obtained statutory power to conduct the preliminary examination of

law students. In those circumstances the authorities on Dec. 21st, 1892, addressed to the Council a letter asking to be favoured with the grounds on which this recommendation had been arrived at. The society yielded to neither the Council nor any educational body in its desire to maintain and increase the preliminary examination of medical students and if it could be shown to its authorities, who were men of great education, that an abandonment of its examination in arts would be for the public good the examination would be relinquished to-morrow. But no evidence of that kind was before it. The report of the committee last November bristled with inaccuracies, with what Lord Randolph Churchill called the other day "dilly-dallies." That report was all dilly-dallies. It contained as ground for the action of the Council the deliberate assertion that the Apothecaries' Society in five years had examined in arts 3616 candidates, that it had passed 2784 and rejected 832. The report went on to compare the percentage with that of other bodies. The figures, however, as taken from the books of the society, were that the society examined 3590 students, not 3616, that it passed 503 instead of 2784, and that consequently the number passed in five years was less than a fifth of what the committee in their report stated. He did not wish to pass any kind of imputation on the committee. He had no idea how they had been deceived, but he did think that when a committee had placed before a responsible body like the Council what he had described as "dilly-dallies" they should, when the statements were shown to be inaccurate, at least confess their inaccuracy. He should at a later stage move that the statement of the Society of Apothecaries with regard to the figures of its preliminary examinations be entered on the minutes.

Dr. ATTHILL stated that individually he was most anxious that the examination of the College of Physicians and Surgeons in Ireland should be discontinued, but the difficulty in the way at present was insurmountable.

Sir JOHN SIMON considered that Mr. Carter had misapplied the precedent of the Incorporated Law Society. It would be a precedent for the Medical Council having the preliminary examination, but he did not think it applied to a separate society like that of the Apothecaries. In respect to this examination he thought that society was in a false position.

Dr. MACALISTER said Mr. Carter's instructions had been extremely bad in this particular case. The statement he had put forward on these instructions was one which he (Dr. MacAlister) could not accept. Mr. Carter had referred to the table in the report of the Education Committee of last year and had characterised the figures given in it by a Randolphian adjective. He (Dr. MacAlister) believed these figures were derived from results supplied to the Council by the Society of Apothecaries itself. Whilst the Education Committee was preparing this report there was circulated to its members a document from the society which was from beginning to end a tissue of fallacies and inaccurate statements. A second edition of it seemed to be regarded as necessary, and though that did not contain all the inaccuracies of the first it was bad enough. There was one ground that ought to weigh with the Council in dealing with this matter—that was that the Education Committee were told that if the policy of requiring the examination to be discontinued were pursued the Apothecaries' Society would take legal means to fight the Council on the subject. He thought it would be admitted even by the Society of Apothecaries that it would not be for the public good if the Council had no control over such an examination.

Dr. GLOVER thought the discussion would do good. It had elicited from the representative of the Apothecaries' Society the fact that it had no objection to the course which the Council was asked to take if it could be shown to be for the public good. He hoped from what they knew of the society that it would not ultimately and persistently refuse to admit the force of the arguments of the Council. It had great reason for not doing so. On the other hand, the Council had no power of compelling it, and he did not think that in the present state of their minds they should try to assert any legal power. They were told they had £1000 to pay for settling a legal question. He hoped there would be some explanation forthcoming as to the nature of that demand, and he should revert to the question on another occasion.

The recommendation was agreed to *nem. con.*, and the third recommendation was passed without comment.

FOREIGN DENTAL QUALIFICATIONS.

The Education Committee in their report on communications from the British Dental Association and the Baltimore Dental Association recommended the discontinuance of the registration of the certificates of the degree of Doctor of Dental Medicine of Harvard University and the degree of Doctor of Dental Surgery of the University of Michigan. These degrees were recognised in 1879. Communications had on various occasions been received from American Universities and colleges begging that their licences in Dental Surgery should be recognised by the Council. These communications showed that the requirements of the petitioners had been raised to the standard of the two American colleges recognised by the Council. In every case, however, the petition was refused on the ground that preliminary examinations were not enjoined and that the course of professional instruction extended over three years only. It appeared to the committee that injustice was done to the American bodies, whose curriculum was, to say the least, equal to those of Harvard and Michigan, by the grant of special recognition to the two last-named colleges alone. The committee, however, considered that a greater injustice was done to the licentiates of the British bodies by placing them on the same level as the diplomates of the two recognised American colleges, whose curricula were manifestly inferior to those enjoined in this country. The Council had full power of visitation and inspection over British bodies and could exercise discipline in order to maintain the standard, but they had no such power over foreign colleges.

Dr. BATTY TUKE moved the adoption of the recommendation.

Dr. MACALISTER, in seconding, said they must either shut the door against these bodies or open it to an indefinite number of American and other foreign colleges.

Sir W. TURNER protested against the Council proceeding to take so important a step as this at the fag-end of their session. More consideration should be given to it and the report should be deferred.

The PRESIDENT pointed out that it was proposed to remove these two bodies because their requirements were not up to the standard of the Council. If they could show their qualifications were such as the Council required, they would be put on the Register again at once.

After some discussion it was resolved, on the motion of Sir JOHN SIMON, that the recognition of the certificates of the degrees of Doctor of Dental Medicine of Harvard University and of the degree of Doctor of Dental Surgery of the University of Michigan be suspended until further notice; that the Registrar be instructed to refuse registration of such certificates; and that the President be requested to transmit to these bodies a copy of the report without the last paragraph containing the recommendation of the committee.

APOTHECARIES' SOCIETY'S PRELIMINARY EXAMINATIONS.

On the motion of Mr. CARTER it was agreed to enter on the minutes the amended statement of the Society of Apothecaries with respect to its preliminary examinations and to refer it to the Education Committee.

PENAL CASES.

Sir W. FOSTER moved: "That the Executive Committee be requested to consider the procedure of the Council under Sections 28 and 29 of the Medical Act, 1858, with a view to the constitution of a small standing committee to advise the Executive Committee and the Council on all questions of action to be taken under the above-mentioned sections and on all questions of principle or practice under the disciplinary functions of the Council." He thought this would effect an improvement on the present method of dealing with the removal and the restoration of names to the Register. There was a feeling amongst the profession that this most difficult and delicate work turned too largely on the legal advisers of the Council and too little on professional considerations.

Dr. PHILIPSON seconded the motion, which was agreed to.

COMMITTEES.

The Executive Committee was elected as follows: Mr. Wheelhouse, Sir Dyce Duckworth, Sir W. Foster and Mr. Teale, representing England; Sir W. Turner and Dr. Heron Watson, representing Scotland; and Dr. Moore and Sir P. Smyly, representing Ireland. The Pharmacopœia, Finance, Dental, Education and Examination Committees were also appointed.

This concluded the business and the Council rose.

Medical News.

UNIVERSITY COLLEGE, CARDIFF.—The plans for the necessary accommodation required for the medical schools in connexion with the University College of South Wales have been approved. A second storey is to be built over the main school buildings, and it is expected that the work will be finished in time for the opening of the school in October.

EAST LONDON HOSPITAL FOR CHILDREN.—The annual court of governors was held on Tuesday, May 30th, at the above hospital, Shadwell. The Earl of Strafford presided. During the past year a new out-patient department has been completed, furnished and opened, but £2000 are still needed to free the funds of the hospital from this responsibility. The Convalescent Home Fund has been collected and a subcommittee formed. During the year 1892 20,834 patients have been treated. Appeal is made for support of the proposed convalescent home in order that the expense of its maintenance may not fall too heavily upon the hospital.

A TRAVELLING COMMISSION OF OPHTHALMOLOGISTS.—The Society for Promoting the Welfare of the Blind in Russia, which is under the direct patronage of the Czarina, has arranged to send several young ophthalmic surgeons this summer in "flying columns" to various localities which are far removed from skilled assistance. They will do what they can towards the diminution of blindness—of which there is a great deal in Russia—both by treating eye diseases, which if neglected might end in loss of sight, and also by operating on cases where it may be possible to restore sight by surgical means. The society is not at present possessed of sufficient means to carry out this excellent scheme, but it hopes by means of subscriptions to obtain pecuniary assistance for the purpose.

THE PROPOSED FEVER HOSPITAL AT LEWISHAM.—An inquiry instigated by a memorial to the Local Government Board from the local authorities was held at Lewisham Workhouse on Tuesday, May 30th. Objections were raised on the ground that the proposed site of the hospital is in the midst of a densely populated district, that the amount to be paid by the Asylums Board is too great, and that there are other sites close by which are free from objection. Mr. Murphy Q.C., on behalf of the Asylums Board, said that a crisis had arrived with regard to the board. A fever epidemic was upon them and they must immediately get a site on which to build. Mr. White, for the local committee, pleaded the deterioration of property should a hospital be built. Mr. Lyon, for the Board of Works, condemned the site as a most improper one. The inquiry was concluded.

THE GORDON BOYS' HOME.—Field-Marshal Sir Lintorn Simmons presided at the annual meeting of this institution which was held on May 30th at the Royal United Service Institution. The report stated that during the year 56 boys enlisted in the Army, three joined the mercantile marine, two emigrated to Canada, and 25 went to various civil occupations. There were 229 boys in the home. The chairman said that on the whole the report was satisfactory. He stated that the home had lost a firm supporter by the death of Lord Tennyson and that the endowment fund raised in memory of the late poet had amounted to £5000. Sir Arthur Gordon, referring to the financial position of the home, said that it was not so satisfactory as could be wished. The retiring members of the executive committee were re-elected.

ST. JOHN AMBULANCE ASSOCIATION.—On Her Majesty's birthday the Duchess of Connaught distributed the certificates and prizes gained by the successful pupils of the Portsmouth centre of this association. The annual demonstration took place on the Governor's green and was admirably arranged and proved highly successful. The subjects for which prizes were awarded were the Arrest of Hæmorrhage, Resuscitation, the Application of Bandages and Splints, and Nursing. The Duke of Connaught presented a challenge trophy, which is to be gained by the same pupils three years in succession before it becomes their absolute property. After the competition and the distribution of prizes the medical gentlemen who had assisted in the working of the centre were presented to their Royal Highnesses. The attendance of the general public was very large, and great interest was manifested in the various details of the demonstration.

UNIVERSITY OF DURHAM.—At a convocation held on Tuesday, May 30th, the degree of Doctor in Medicine for practitioners of fifteen years' standing was conferred on Mr. Albert William Denis Leahy, F.R.C.S.Eng.

OXFORD UNIVERSITY.—Dr. W. Collier and Mr. H. P. Symonds have been elected by the Council of the University to be Lichfield Lecturers in Clinical Medicine and Surgery respectively. On March 6th Mr. E. A. Minchin and Mr. Walter Ramsden were elected Radcliffe Travelling Fellows.

Parliamentary Intelligence.

THE HOUSE OF COMMONS.

MONDAY, MAY 29TH.

The Ringstead Burial-ground.

Mr. Paul asked the Home Secretary if his attention had been directed to the inconvenience to which the inhabitants of Ringstead, Northamptonshire, were being subjected to by the closure of their burial-ground by an order in council, and by the delay on the part of the parochial sanitary committee to provide a new ground for the disposal of the dead.—Mr. Asquith said he was able to announce that a site for the purpose mentioned had been selected by the sanitary authority and had been approved by the Secretary of State.

The Case of Surgeon-Lieutenant-Colonel Franklin.

In reply to a question put by Sir H. S. King on this case, Mr. G. Russell stated that the attention of the Secretary of State for India had been drawn to the case of Surgeon-Lieutenant-Colonel King, who had petitioned to have his name added to the list of those officers who had been declared to be entitled to be paid at par when on furlough. The Secretary of State was unable to admit that this officer had any claim under the terms on which he entered the service to receive furlough pay at the rate of 2s. the rupee. The Secretary of State had the power, said Mr. Russell, to regulate the scale of pay mentioned and there was no compact or bargain in the matter.

Quarantine at Malta.

In Committee of Supply Captain Bethell wished to draw the attention of the Under-Secretary for the Colonies to the way in which British subjects are treated under the quarantine law. Not only were they shown but little consideration and courtesy, but they had to provide their own food in the best way they could, whilst any modicum of comfort or convenience could be obtained only by the payment of blackmail.—Mr. Buxton said the Government had no absolute power to insist upon any definite measure in regard to the quarantine at Malta, but something might be done by calling attention to the matter and by bringing a little pressure to bear on the authorities.

Milk Analyses.

Mr. H. Fowler, replying to questions raised by Lord G. Hamilton in regard to a recent letter addressed to Dr. Bell, the Principal of the Inland Revenue Laboratory, Somerset House, by a large number of influential members of the Society of Public Analysts upon the subject of the analysis of sour milk, said he had been in communication with the Board of Inland Revenue and he was informed that the statements contained in the paragraph relating to this subject must not be accepted as representing the facts connected with the analyses of milks referred to Somerset House by direction of the magistrates. No analysis of a sample is undertaken if found in a condition which does not allow of a trustworthy opinion being formed respecting its original composition, and there are no valid grounds whatever for believing that any instances of failure of justice have arisen through the evidence contained in the certificates of analysis furnished to magistrates, under the Sale of Food and Drugs Acts, by the chemical officers of the Board of Inland Revenue. In this connexion, with respect to the samples of milk referred by the justices in disputed cases and analysed during the year ended March 31st, 1893, that of twenty-six alleged to contain added water, in only two instances did the Somerset House analysts come to the conclusion that no water had been added, and that of twelve samples alleged to have been deficient in fat or cream, in only one instance were they of opinion that the fat was not deficient.

THURSDAY, JUNE 1ST.

Anthrax in India.

Colonel Lockwood asked the Under Secretary of State for India whether his attention had been called to a statement, published in the *Pioneer Mail* of Allahabad, that M. Pasteur had expressed, through the Secretary of State, his willingness to send out one of his experts with the object of introducing vaccine for the prevention or mitigation of anthrax in India; whether he is aware that Pasteur's vaccine for anthrax had been officially declared, in a report of the Local Government Board in London, "perfectly ineffective" for the purpose proposed; and whether it was true, as stated in the *Times of India*, that two animals have been "flayed alive" before a public audience in Calcutta, and if so, whether there were any means of restraining such proceedings in future.—Mr. George Russell replied that the Government of India had accepted M. Pasteur's offer to send out an investigator. The Secretary of State could not trace in the report of the Local Government Board such a statement as the hon. gentleman mentioned, nor had he been able to find the shocking statement quoted as from the *Times of India*.—Sir Henry Roscoe asked Sir Walter Foster whether he was aware that the report of the Local Government Board referred to was eleven years old, and whether since that time the system of inoculation against anthrax had been so very much improved that within the last few years many hundreds of thousands of animals had been successfully inoculated both in France and other countries, and that this cattle plague was now rapidly disappearing in places where the disease had been prevalent for many years past.—Sir Walter Foster said the report was eleven years old. He had no official information at the Local Government Board as to the efficacy of this method of treatment upon the Continent, but from personal knowledge he knew that the statement of Sir Henry Roscoe was true.

Quack Medicine Advertisements.

Mr. Boulnois asked the President of the Board of Agriculture whether he could take any steps to prevent the face of the country being disfigured by the advertisements of vendors of quack medicines and unguents.—Mr. Herbert Gardner replied that, speaking from an esthetic standpoint only, he shared the views of the hon. gentleman with regard to the inartistic results of the practice in question, but he had no power to interfere in the matter, and he could not say that he was surprised that owners and occupiers of agricultural land should, under existing circumstances, be unable to resist the temptation offered to them by advertisement contractors.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ASHWORTH, W. RUSHTON, L.R.C.P.Lond., M.R.C.S., has been appointed Resident Surgeon to the Costa Rica Railway Company's Hospital at Port Limon.

ATKINSON, J., M.B., C.M. Edin., has been appointed Senior Resident Medical Officer to the North-West London Hospital, Kentish-town-road.

BIRD, G. W. H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

BOWRING, W. A., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

BUCKLEY, J. C., M.B., Ch.B. Vict., has been appointed House Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

CAGNEY, JAMES, M.D., M.R.C.P., has been appointed an Assistant Physician to the North-West London Hospital.

CROMIE, JOHN, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer to the Biyth Port Sanitary Authority.

DONKIN, Dr., has been appointed Joint Lecturer on Medicine at the Westminster Hospital Medical School, vice Dr. Sturges, resigned.

DORMAN, M. R. P., M.A., M.B., B.C., D.P.H. Cantab., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

FISHER, J. H., L.R.C.P., F.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

FLETCHER, F. J., L.S.A., has been appointed Medical Officer for the Burton Coggles Sanitary District of the Grantham Union.

FLEURY, ELEANOR L., M.B., B.Ch. Irel., has been appointed Clinical Assistant to the Richmond Asylum, Dublin.

FREDERICK, H. J., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

GOVER, L. D., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

HARRIS, A., M.B., Ch.B. Vict., has been appointed Medical Officer of Health for the Thetford Union.

HICKS, T. W., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

HOPE, E. W., M.D., C.M. Edin., L.R.C.P. Lond., D.Sc. (Pub. Health), has been appointed *pro tem.* Medical Officer of Health to the Port Sanitary Authority of Liverpool.

ISAACS, E. P., L.R.C.P., M.R.C.S., has been appointed Senior Ophthalmic Surgeon to St. Thomas's Hospital.

JAFFÉ, C. S., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

JAMIESON, P., F.R.C.S. Edin., has been reappointed Medical Officer and Police Surgeon, Peterhead.

KENDALL, N. F., M.R.C.S., L.R.C.P. Lond., has been appointed Junior Resident Medical Officer to the North-West London Hospital, Kentish-town-road.

KENNEDY, A. E., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Small-pox Hospital, West Ham.

LAW, R. R., B.A., M.B., B.C. Cantab., has been reappointed House Surgeon to St. Thomas's Hospital.

MILTON, A. R. O., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

NORTHCOTE, P., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

ORMEROD, J. A., M.D. Oxon, F.R.C.P. Lond., M.R.C.S., has been appointed Assistant Physician to St. Bartholomew's Hospital.

PERSHOUSE, FREDERICK, L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

PLANCK, C., M.A. Cantab., L.R.C.P. M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

PRITCHARD, Wm. B., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Royal Infirmary, Manchester, vice Annacker, resigned.

PURVIS, W. P., M.B., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

REDPATH, W., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

ROWAT, JOHN, M.D., C.M., D.P.H., F.P.S. Glasg., has been appointed Medical Officer for the First Sanitary District of the Highworth and Swindon Union.

RUDALL, J. F., M.B., B.S. Melb., M.R.C.S., has been appointed Junior Ophthalmic House Surgeon to St. Thomas's Hospital.

SLOAN, SAMUEL, M.D., C.M., F.F.P.S. Glasg., has been appointed Consulting Physician to the Glasgow Samaritan Hospital.

SUTCLIFFE, W. G., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

TATHAM, JOHN, M.D. St. And., F.R.C.P. Lond., has been appointed Consulting Physician to the Hospital for Consumption, Brompton.

WAINWRIGHT, W. L., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

WOODCOCK, A. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CENTRAL LONDON OPHTHALMIC HOSPITAL, 233A, Gray's-inn-road, W.C. House Surgeon. Rooms, coals and lights provided.

CITY OF BIRMINGHAM.—Resident Medical Superintendent for the City Hospital for the Treatment of Small-pox and Scarlet Fever. Unmarried. Salary £200 per annum, with furnished residence, coal, gas, attendance, washing and rations. Applications to the Town Clerk, Council House, Birmingham.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician, for six months. Board and residence and allowance for washing provided. Applications to the Secretary, office, 24, Finsbury-circus, E.C.

CROYDON UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health, for one year. Salary £400 per annum, which will include travelling and all other expenses. Applications to the Clerk, Union Offices, Croydon.

FARINGDON UNION.—Medical Officer and Public Vaccinator for the Buckland District of the Union. Salary £126 per annum, with extra fees allowed by the Orders of the Local Government Board, and statutable Vaccination fees. Applications to the Clerk, Faringdon.

GENERAL INFIRMARY, Northampton.—House Surgeon, unmarried. Salary £125 per annum, with furnished apartments, board, attendance and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Dental Surgeon.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board and residence at the institution.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Ophthalmic Surgeon.

NORFOLK COUNTY ASYLUM, Thorpe.—Temporary Assistant Medical Officer, for July, August and September. Board, lodging and washing provided.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—Junior House Surgeon, for six months. Salary at the rate of £60 per annum. Applications to the Secretary, 27, Clement's-lane, E.C.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon, for six months. Board, lodging and washing provided.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, 10, Dyke-road, Brighton.—House Surgeon. Salary £80 per annum, with board, lodging and washing (no stimulants).

ROYAL BERKS HOSPITAL, Reading.—Assistant House Surgeon. Salary £40 per annum, with board and lodging.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior House Surgeon. Salary £100, with board, lodging and washing.

UNIVERSITY OF LONDON, Burlington-gardens, W.—Examinership in Surgery. Salary £200 a year.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W. Surgeon on In-patient Staff, and Surgeon on the Out-patient Staff.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician, for six months. Board and lodging provided.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Surgeon, for six months. Board and lodging provided.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Assistant Obstetric Physician.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant, for six months. Board, lodging and washing provided.

Births, Marriages and Deaths.

BIRTHS.

DAVY.—On May 29th, at Welbeck-street, Cavendish-square, W., the wife of Richard Davy, F.R.C.S.E., of a daughter.

HARVEY.—On May 24th, at 117A, Queen's-gate, S.W., the wife of Sidney Harvey, of a son.

MILEY.—On May 29th, at Belsize-avenue, N.W., the wife of Miles Miley, M.A., M.B., of a daughter.

OZANNE.—On May 31st, at Sheen House, Harrogate, the wife of Fred. N. Ozanne, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

MARRIAGES.

LYNDON—CHARLETON.—On May 27th, at St. Paul's, South Hampstead, by the Rev. A. J. Beaumont, M.A., Arnold Lyndon, M.D. Lond., M.R.C.S. Eng., &c., of Wellington, Somerset, to Charlotte, widow of the late Robert A. Charleton, B.A., of Clifton, and daughter of William Ransom, J.P., of Fairfield, Hitchin.

MACDONNELL—HARDEN.—On April 10th, at St. Paul's Cathedral, Rockhampton, Lucius G. A. MacDonnell, Surgeon, Aramac Hospital, son of the late Colonel W. E. A. MacDonnell of New Hall, county Clare, to Nita, daughter of Carl Harden, Rockhampton.

DEATHS.

BELL.—On May 23rd, at Elm Tree-terrace, Anlaby-road, Hull, Richard Frank Bell, M.R.C.S., L.R.C.P., aged 39.

HADDEN.—On May 26th, at Harley-street, Walter Baugh Hadden, M.D. Lond., F.R.C.P. Lond., aged 57 years and five days.

PAVEY.—On May 22nd, at Nallsworth, Gloucestershire, Henry Pavey, M.R.C.S., aged 74.

POUND.—On May 22nd, at Odiham, Hants, George Pound, M.R.C.S., L.S.A., aged 64.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

Medical Diary for the ensuing Week.

Monday, June 5.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2.30 P.M.; Friday, 2 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. W. Lang: Conjunctival Affections.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Resumption of Discussion on the Treatment of Antral Disease, Mr. W. R. Ackland opening.—Mr. F. Henri Weiss will show a new Angle Mallet.—Mr. H. G. Read: A case of Anthrax with points of dental interest.—Mr. Alex. Matthews: Notes on a case of Unilateral Bony Anchylosis of Temporo-maxillary Joint.—Mr. W. Rushton: Note on Chloride of Ethyl.—The President will describe a case of Replantation.

Tuesday, June 6.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 1.45; Saturday, 9.15.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Urticaria and Pruriginous Affections.—Bethlem Hospital: 2 P.M., Dr. H. Corner: Insanity with Syphilis, Insanity with Organic Brain Disease.

Wednesday, June 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: The Varieties of Pulmonary Tuberculosis, their Diagnosis and Prognosis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Ormerod: Hemiplegia.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. S. Morton: Ocular Paralyses.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Alban Doran, Dr. Handfield-Jones and others. Dr. Giles: The Longings of Pregnant Women.—Mr. Alban Doran: On the Absorption of Fibroid Tumours of the Uterus, with a report of a suspected case.—Dr. Giles: Sickness of Pregnancy.

Thursday, June 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Lubbock: Selected Medical Cases.—London Throat Hospital (Gt. Portland-st.): 8 P.M., Mr. G. Stoker: Impaired Movements of the Vocal Chords.—Central London Sick Asylum: 5.30 P.M., Mr. R. Barwell: Clinical Lecture.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Juler: Microscopical Sections of a Ciliary Sarcoma.—Mr. John Griffith: Specimens of a Tumour of the Ciliary Body.—Mr. Haydon: A case of Ruptured Choroid with Perforations of the Iris.—Mr. Morton: A case of Pemphigus of the Conjunctiva.—Mr. Rockcliffe: Notes on a case of Tumour of the Optic Nerve.—Mr. Cross: Tumour in the Anterior Chamber following the Implantation of Eyelash.—Dr. Swanzy: The Combined Method of Extraction for Cataract.—Mr. Batten: Some Points in the Diagnosis and Prognosis in Pathological Myopia.

Friday, June 9.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr J. Kingston Fowler: Cases illustrating the Varieties of Pulmonary Tuberculosis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Leprosy and Glanders (Sections).
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—9 P.M. Mr. T. Pridgin Teale: The Abandonment of Iridectomy in the Extraction of Hard Cataract. (Bowman Lecture.)

Saturday, June 10.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Insanity with Cardiac Disease, Phthisis, Gout, Diabetes, &c.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged in the future to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together.

We have had a large number of duplicate copies of the Index to the last half-yearly volume printed, and those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

AMERICAN QUACKERIES IN LEEDS AND WALSALL.

ADVERTISEMENTS are before us meant to lead captive "silly women" in which they are promised everything from artificial teeth for half-a-crown to a pamphlet on the "Dr. Walton Co.'s treatment" by which women are promised "painless labour." The former blessing is advertised on a card in Walsall. The latter is advertised in the *Leeds Times*. We should have thought that, out of consideration to the judgment, not to say the taste of its readers, our contemporary would have declined such advertisements. But it is not so.

X. X. X.—We regret that we cannot comply with our correspondent's request, as to do so would be to depart from the rule in question.

SUPERFLUOUS NUMBERS IN THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—Three years ago, in reply to an advertisement in your paper, there were eighty-two applicants for the post of locum tenens in a northern town for one week at £2 and third-class return fare. Last week a principal informs me that he had thirty-four applicants for a locum tenens in a small Yorkshire village for fourteen days at the large salary of £2 a week and third-class single fare. In the paper *Hearth and Home* this week I observe there arises the question, "Why should not bachelors be taxed?" I think it was Carlyle who said in one of his cynical moods that England contained thirty-two millions of persons—mostly fools. With the above facts before you, Sirs, are you not inclined to agree with him? I am, Sirs, yours truly,

May 24th, 1893. CAVE ET SAPE.

TREATMENT OF CHOREA.

IN a recent number of the *Lyon Médical* Dr. Deydier's experiences of the use of Dr. Brown-Séquard's fluid in cases of chorea are given. In one child, rheumatic and a sufferer from chorea for fifteen days, antipyrin had no effect. Injections of the fluid now alluded to were made—seven injections in two weeks. The incoördination disappeared, and speech and swallowing became normal and all the symptoms disappeared. In another child, eight years of age, suffering from a second and typical attack of chorea, a complete cure is said to have followed forty injections. Three more cases are quoted, in two of which, after eleven and eighteen injections respectively, complete cure is claimed, whilst the third had improved. Some cases of nocturnal incontinence of urine were also treated by the same liquid. In one child of twelve years no incontinence was present on the night following an injection; otherwise it was not affected. In a second a cure resulted apparently from the fear of an injection, and in a third also the symptom had disappeared after one injection, which gave rise to considerable vomiting and general disturbance. The injections in all these cases were given in the abdominal walls. It is really difficult to see what advantages are expected to accrue either to science or to the healing art from such experiments as those just detailed. In the first series some cases of chorea—a disease which notoriously improves under various drugs, but even more perhaps without them—are recorded as having improved after injections spread over varying periods of time; in the second series the best result seems to have been obtained in a case in which the fluid was not administered. Under the circumstances deductions would be valueless.

A BLUEBOTTLE AND MAGGOTS REMOVED FROM THE EAR.

To the Editors of THE LANCET.

SIRS,—An undergraduate being a practical joker, put a large fly into his friend's ear, and awaited the result with interest. Alarmed at the buzzing in his head the victim of this cruel jest ran off to me and I extracted the creature from his ear. Then, on syringing the auditory canal with a lotion of corrosive sublimate, I washed out a number of tiny white maggots. The time occupied between the insertion of the fly into the ear and the extraction of the fly and maggots was not more than fifteen minutes. Probably the maggots were deposited a ive, for the bluebottle commonly hatches out its eggs in its own body into the larval condition, so that the young can feed as soon as they are born. Some years ago I was roused at night to extract a moth from a man's ear. My patient had been out with a lantern treacling trees to catch moths, and ran home in great distress with a moth kicking against his tympanum. I have never yet removed an earwig. The fly in the ear is more easy to extract than the "bee in the bonnet" or the 'maggot in the head" which excites practical jokers.

I am, Sirs, yours truly,

Cambridge, May, 1893. GEORGE WHERRY.

"THE COMING CHOLERA"

MR. SHERMAN BIGG, late Army Medical Staff, forwards us a communication under the above heading, in which he expresses his belief that the remedial measures usually prescribed to avert an outbreak of cholera are comparatively useless. "Every epidemic," he says, "naturally finds the most suitable and fertile ground for reproduction in the midst of overcrowded and insanitary dwelling-houses." He believes that the prevention of cholera, providing the necessary conditions are present, is impossible, and that the only rational treatment is the removal of predisposing causes. At present overcrowding cannot be suddenly ameliorated, and the only alternative in the case of an epidemic is to remove the healthy population of the district. To isolate the sick, remarks our correspondent, is useless whilst the healthy remain under the same conditions. He advocates the establishment of health resorts, to which the healthy may be transferred when the first signs of an outbreak shall have become apparent.

PEMPHIGUS.

To the Editors of THE LANCET.

SIRS,—Could any of your readers give me some suggestions regarding the treatment of this complaint? Lately a case of this nature has come under my attention which defies most of the usual remedies, such as arsenic and tonics. The facts of the case are briefly these: A young girl aged nine years, waded one very hot day in water. Exactly a week after this slight redness appeared on the left arm, then blots formed of all sizes and rapidly increased; they became filled with pus and then dried up and formed crusts. This process has gone on continuously for three weeks, affecting the face, arms, legs and now the body. The girl is getting very much out of health, has lost her appetite, and appears to be getting progressively worse. The temperature varies from 100° to 102°. The urine is normal. The girl has always enjoyed very good health, except when two years old, when she had a fall hurting her head and being ill for one week owing to the effects of the accident. I am, Sirs, yours truly,

North Tawton, May 30th, 1893. P. W. HISLOP, M.B., C.M.

PREPARING FOR THE INTERNATIONAL CONGRESS.

Mr T. Jackson, F R.C.S. Eng.—The number of English books translated into Italian within the last twenty years is legion, and not a few of them are medical. For instance, the gynæcological treatises of the late Mr. E. J. Tilt and Sir Spencer Wells are familiar to most Italian practitioners in Italian renderings, and these, with lists of similar English works, also naturalised in Italian, may be had of any foreign bookseller—R landi, Dulau, Nutt, or Williams and Norgate. For such a knowledge of Italian as would be useful to English visitors to Italy perhaps a better course than the perusal of English scientific manuals in Italian would be to take Stanley's "Darkest Africa" in its Italian dress, "L'Africa Tenebrosa," published simultaneously with the original at Milan; or Smiles's "Self-Help" as rendered by Signor Lessona in "Volere e Potere." Darwin's "Origin of Species," "Descent of Man," and other treatises from the same pen have been translated into singularly pure and flowing Italian, a few weeks' practice with which would suffice to make the reader independent of grammar and dictionary, giving him, in fact, a "working knowledge" of the language.

FLIES AS CARRIERS OF CHOLERA.

To the Editors of THE LANCET.

SIRS,—The *rôle* that house-flies play in the transmission of cholera, as well as other diseases, was the subject of a very interesting paper by Dr. Nicholas in THE LANCET, vol. ii. 1873 p. 724 (*vide* Digest, 917:6), who evidently anticipated the observations of Dr. Sawtschenko, noted at page 1212 of your issue of May 20th.

I am, Sirs, yours faithfully,

Boundary-rd., N.W., May 24th, 1893. RICHD. NEALE, M.D.Lond.

A CURIOUS ADDITION TO FERNFIELD MUSEUM, BRIDGE OF ALLAN.

DR. PATERSON has received from Mr. A. Bayne, who went out to the Canary Islands for the benefit of his health, an interesting addition to his extensive museum. This is a Guanche skull. These people were the original inhabitants of the Canary Islands, and when the Spaniards took possession they were unable to overcome the Guanches, who betook themselves to caves. In order to exterminate them the Spaniards let themselves down from the rocks they could not scale and set fire to the whole bush in front of the caves, and so smoked the people to death. The caves were afterwards so carefully shut up that they are only now being discovered. The skull sent to Dr. Paterson was found some time ago in a cave in Teneriffe, the largest of the Canary Islands, where there were forty others of men, women and children. It is supposed to be the skull of a man between forty and fifty years of age. Dr. Paterson says it is remarkable for its peculiar formation and fineness of tone. The only other specimen sent home is in the museum of the Royal College of Surgeons. "The Guanches," he adds, "are an extinct race, and the skull is the largest and finest in my collection."

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 1st, 1893.

Date	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 a.m.
May 26	30·20	N.W.	60	54	90	64	54	..	Cloudy
,, 27	30·21	N.W.	58	54	110	66	54	..	Overcast
,, 28	30·26	N.W.	60	54	111	72	52	..	Cloudy
,, 29	30·12	S.W.	62	58	121	75	57	..	Hazy
,, 30	30·09	N.E.	51	48	96	58	48	0·25	Cloudy
,, 31	30·08	N.W.	51	47	105	62	45	..	Cloudy
June 1	30·01	N.W.	54	48	99	64	45	..	Bright

During the week marked copies of the following newspapers have been received:—*Clifton Free Press, National Reformer, Manchester Guardian, Eastern Weekly News, Glasgow Herald, Newcastle Chronicle, Western Morning News, South Wales Daily News, The News, Health, Bradford Daily Argus, Scotsman, Times of India, Pioneer Mail, Liverpool Daily Post, Leeds Mercury, Bristol Mercury, Yorkshire Post, Weekly Free Press and Aberdeen Herald, Reading Mercury, City Press, Local Government Chronicle, Mining Journal, Hertfordshire Mercury, Surrey Advertiser, West Middlesex Advertiser, Guy's Hospital Gazette, The Morning, Food and Sanitation Journal, Local Government Journal, Le Temps (Paris), Optician, Nature, Poole Herald, Cheltenham Examiner, Leigh Chronicle, Hereford Times, Kingston and Surbiton News, The Globe, Builder, Architect, Sunday Times, Scholastic Globe, Burton Chronicle, Birmingham Mail, Retford Herald, North British Advertiser, Bridgwater Independent, Waterford News, Galignani Messenger, Cumberland Pacquet, Halifax Courier, Newcastle Daily Leader, Engineering News, Eastern Morning News.*

Communications, Letters &c. have been received from—

A.—Messrs. Allen and Hanburys, London; A. M. B., London; Alpha, London.

B.—Dr. James Braithwaite, Leeds; Dr. H. Blanc, Cannes; Dr. A. O. Bobardt, London; Dr. E. Blake, London; Dr. Elizabeth Blackwell, Hastings; Mr. G. Sherman Bigg, London; Mr. C. Bateman, Guildford; Mr. T. B. Browne, London; Mr. F. E. Bennett, London; Mr. F. J. Bennett, Westbury; Mr. J. Baillie, Suchow; Messrs. Brown, Gould and Co., London; Messrs. Burgoyne, Burbidges and Co., London; *Birmingham Daily Post*, Proprietors of; Ben Rhydding Hydro Establishment, Managing Director of; *Black and White* Publisher of, London; Bath and Wells Office, Harrogate, General Superintendent of.

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X.—X. X. X.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. J. P. Aitchison, Blackburn; Mr. R. B. Anderson, Bodmin; Assistant, London; Anglo-Swiss Condensed Milk Co., London; Anglican, London; A. K. O., London; A. B. C., London.

B.—Surgeon-Major Blood, Birkenhead; Mr. Botwood, Ipswich; Mr. d. Butterfield, Northampton; Messrs. Blondeau et Cie., London; Barnwood House Hospital, near Gloucester, Secretary of; Brandon, London; Brighton, London.

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X.—Xi, London; X. Y. Z., Leeds.

Y.—Y., London.

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